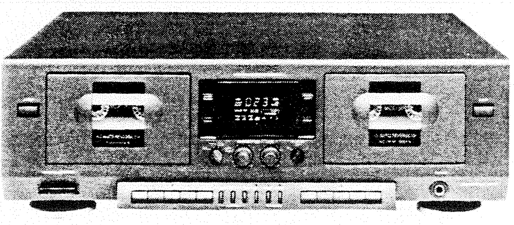
CASSETTE DECK 70FC930/00S

01S/05S/10S/17S/20S/25S

Service
Service
Service



ServiceManual

CONTENTS	PAGE
Specifcations	2
Connections and controls	3
Warnings	4
Servicing hints	5-6-7
Block diagram	8-9-10-11-12
Wiring diagram	13-14-15
Supply-Digital Front circuit diagram	16-17-18
Supply-Digital Front P.C.B	19-20-21
Recorder P.C.B	22-23-24
Recorder digital circuit diagram	25-26-27
Measurements and Adjustments	28-29-30
Recorder analog circuit diagram	31-32-33
Exploded view RE-Deck	34-35-36
RE-Deck P.C.B	37
List of mechanical parts	38
Exploded view cabinet	39-40
List of Electrical parts	41-42-43-44-45 46-47-48

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GB 4822 725 23907

PHILIPS

PCS 57 543

SPECIFICATION

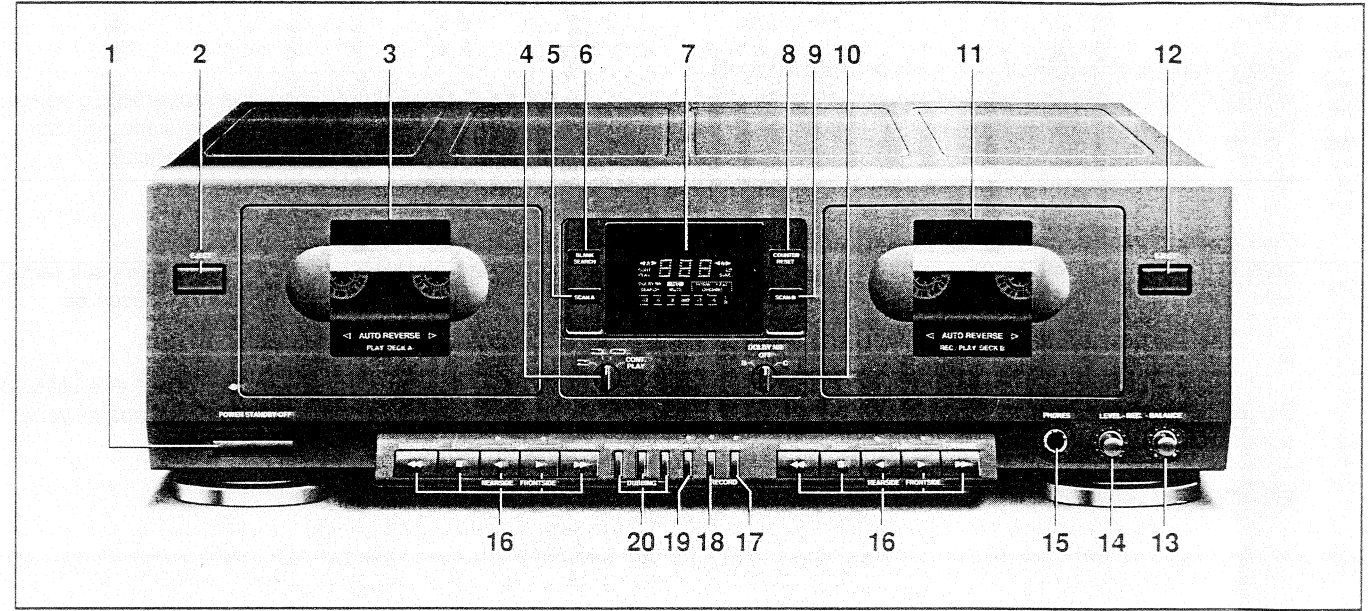
GENERAL

Mains voltage	: 220 V	/00S/10S
	: 240 V	/05S
	: 120 V	/17S
Mains voltage selector	: 115-230 V	/01S
Mains frequency	: 50-60 Hz	
Power consumption	: 17 W max.	
Demensions	: 435x140x300mm	
Weight	: 5,5 Kg	

CASSETTE DECK

Cassette system	: Compact cassette
Number of tracks	: 2x2 (stereo)
Fast wind time (C60)	: ≤ 100 sec.
Tape speed	: 4.76 cm/sec. ± 2% (DIN)
Wow and flutter weighted	: ≤ 0.2% (DIN)
Bias and erase frequency	: 80 KHz ± 10%
Frequency range chromium	: 40 - 15000 Hz (DIN45500)
Ferro	: 40 - 14000 Hz (DIN45500)
Signal/noise ratio	
chromium without dolby	: ≥ 56 dB (DIN45500)
ferro without dolby	: ≥ 53 dB (DIN45500)
improvement with dolby B	: ≥ 8.5 dB (CCIR)
improvement with dolby C	: ≥ 17 dB (CCIR)
Distortion (K3)	: ≤ 3%
Line input sensitivity (cinch)	: 75 mV for 200 nWb/m
Outputs	
line output	: 500 mV at 200 nWb/m
headphone (6.3mm jack)	: 500 mV at 120 Ω

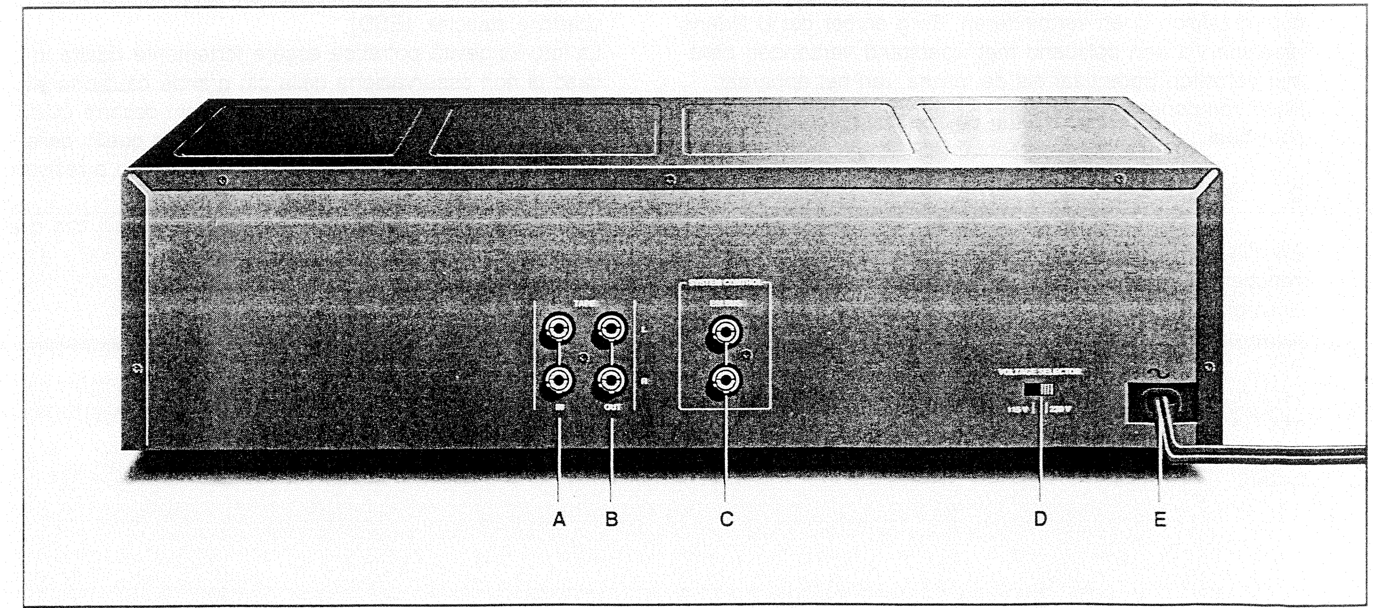
CONNECTIONS AND CONTROLS



FRONTSIDE

1	Power on/off	1403
2	Eject deck A	
3	Cassette holder A	
4	Rev mode selector	1301
5	Scan A	1323
6	Blank search	1322
7	Display	6310
8	Counter reset	1321
9	Scan B	1320
10	Dolby NR.	1302
11	Cassette holder B	
12	Eject deck B	
13	Rec. balance	3425
14	Rec. level	3426
15	Phones	1407

16	Keyboard deck A		
	rewind		1316
	stop		1317
	play reverse		1318
	play normal		1319
	wind		1315
	Keyboard deck B		
	rewind		1308
	stop		1307
	play revers		1306
	play normal		1305
	wind		1304
17	Record mute		1309
18	Record pause		1310
19	Direction		1311
20	Dubbing CD	synchro	1312
		fast	1313
		normal	1314



REARSIDE

A	Tape in	1405
B	Tape out	1408
C	ESY bus	1406

D	Voltage selector	1402 only /01
E	Mains lead	

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

NL

Veiligheidsbepalingen vereisen dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambiago identici a quelli specificati.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pieces de rechange identiques à celles spécifiées.

Pour votre sécurité, ces documents doivent etre utilisés par des specialistes agrées, seuls habilités à réparer votre appareil en panne.

WARNINGS

GB WARNING

All ICs and many other semi conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.When reparing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

NL WAARSCHUWING

Alle ICs en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD)
Onzorgvuldig behandelen tijden reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat U tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

D WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber electrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren. Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

F ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrair étre considérablement écourtée par le fait qu'aucune precaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien étre relié au meme potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller á ce que les composants ainsi que les outils que l'on utilise soient également á ce potentiel.

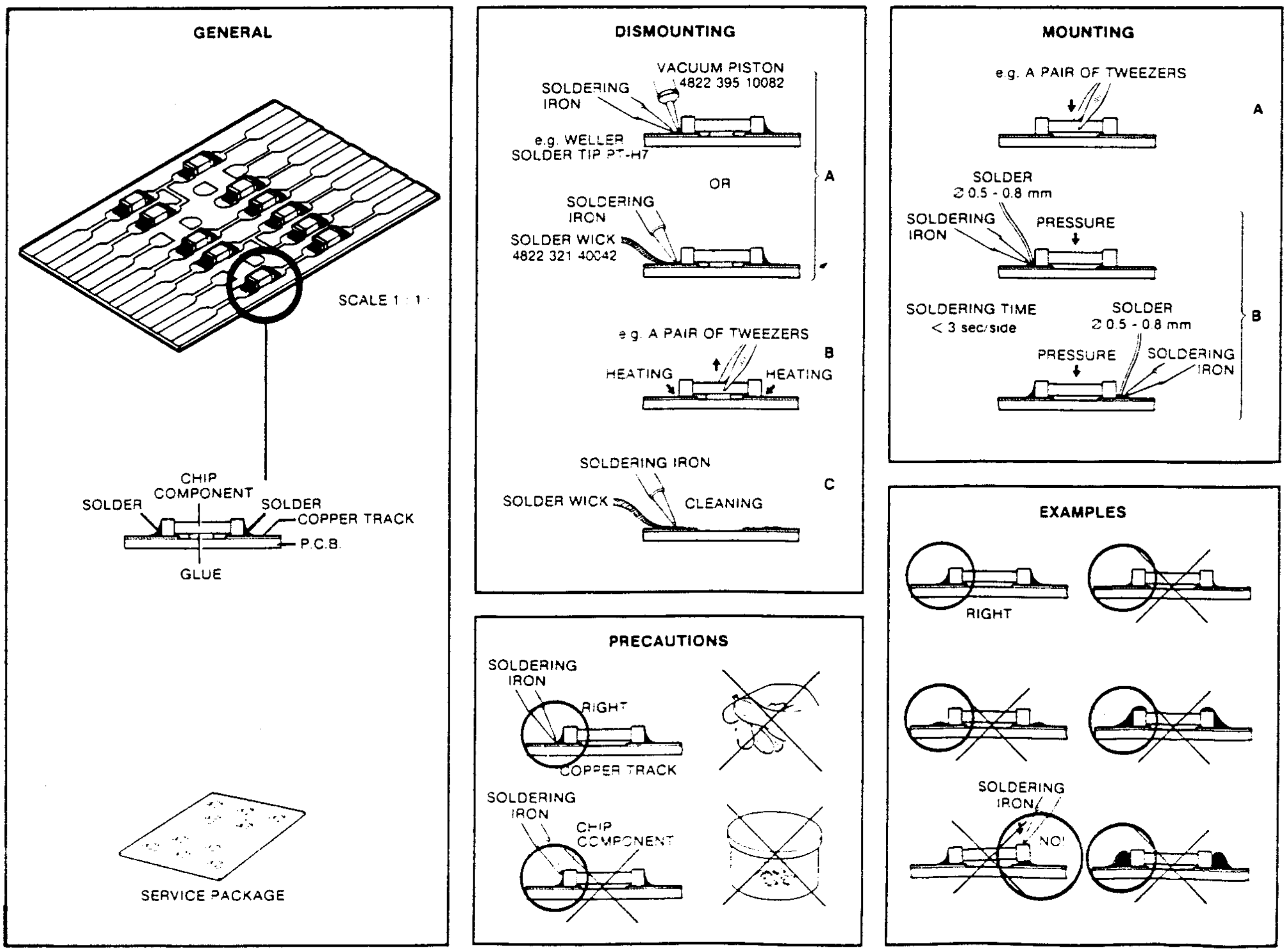
I AVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche. (ESD)
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

SERVICING HINTS

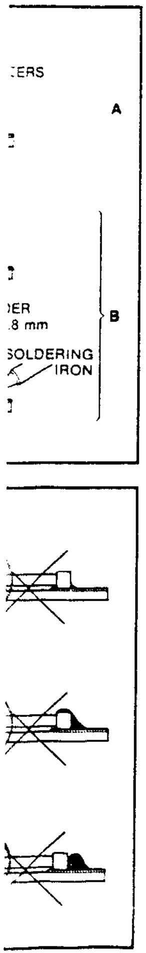
Explanation of the abbreviations

PSD or PDWN	Power Supply Down Such mentioned points will be activated when the power supply swiched off for a short moment.
PAD	Power supply analog/digital Control signal to switch on and off the supply of the analog/ digital converter.
ADL	Output analog/digital converter left channel
ADR	Output analog/digital converter right channel
L	Input analog/digital converter left channel
R	Input analog/digital converter right channel
LO	Output audio signal left channel
RO	Output audio signal right channel
L IN	Input audio signal left channel
R IN	Input audio signal right channel
AC1	AC voltage for display
AC2	AC voltage for display
PVCC	+10 V for recorder module
VCC	+15 V for recorder module
VR	+13,5 V for recorder module
VRD	+7,5 V reference voltage for dolby circuit
DDPR	Dubbel Deck Play-back Recording circuit
DDPR VR	Ref.voltage for Dubbing Deck Play-back recording circuit
GND	Analog ground
PGND	Digital ground
DCL CL or SCLK	Clock line from master to slave processor
DCL DA or SD	Data line from master to slave processor
DE	Data enable line for 8 bit output
STRB	Strobe input line for 8 bit shift register
PMG A or B	Control signel power magnet A deck or power magnet B deck


GENERAL
SCALE 1 : 1
CHIP COMPONENT
SOLDER
SOLDER
COPPER TRACK
P.C.B.
GLUE
SERVICE PACKAGE
DISMOUNTING
VACUUM PISTON 4822 395 10082
SOLDERING IRON
e.g. WELLER SOLDER TIP PT-H7
OR
SOLDERING IRON
SOLDER WICK 4822 321 40042
A
e.g. A PAIR OF TWEEZERS
B
HEATING
HEATING
SOLDERING IRON
SOLDER WICK
CLEANING
C
MOUNTING
e.g. A PAIR OF TWEEZERS
A
SOLDER ⌀ 0.5 - 0.8 mm
SOLDERING IRON
PRESSURE
SOLDERING TIME < 3 sec/side
SOLDER ⌀ 0.5 - 0.8 mm
PRESSURE
SOLDERING IRON
B
PRECAUTIONS
SOLDERING IRON
RIGHT
COPPER TRACK
SOLDERING IRON
CHIP COMPONENT
EXAMPLES
RIGHT
SOLDERING IRON
NO!

27 012C12

moment.



SERVICE TESTPROGRAMM

GENERAL

With this testprogramm the following parts can be checked.

1 Display
2 Rotary switches
3 Keyboard
4 Oscillator

The service testprogramm can be started by pressing the ◂ ▸ (direction) and counter reset buttons together and switched on the set.
With the counter reset button you can scroll through the service modes 1 uptill 6
The service testprogramm can be used without a recorder mechanism.

DISPLAY TEST

Service mode 1
- Select service mode 1 by pressing the counter reset button.
- In this mode the display shows the half of the display segments.

Service mode 2
- By pressing the counter button again service mode 2 can be selected.
- The display shows now the other half of the display segments.

Service mode 3
- Press the counter button once more, the last mode of the display test is selected.
- The display shows now all the display segments

ROTARY SWITCH TEST

Service mode 4
- Select service mode 4 by pressing the counter reset button.
- A two digit key number will be displayed.

a left digit

Position button	Display	shows
Contplay	cont play	4
⊂⊃		3
⇄		2
→		1

b right digit

Position button	Display	shows
C	Dolby nr	03
Dolby off		02
B	Dolby nr	01

KEYBOARD TEST

Service mode 5
- Select service mode 5 by pressing the counter reset button.
- A one digit key number will be displayed.

Press button	Display shows
Deck A	
backward	1
stop	2
play reverse	3
play forward	4
forward	5
Dubbing	
normal	6
fast	7
CD Synchro	8
◂ ▸ direction	9
record pause	10
record mute	11
Deck B	
backward	12
stop	13
play reverse	14
play forward	15
forward	16
blank search	17
autoscan A	18
autoscan B	19

OSCILLATOR TEST

Service mode 6
- When this service mode is selected a 78 KHz signal is available on the reset of connector 1300 pin 1 to the recorder PCB.
- During service mode 6 the display is blank.
- normal mode starts again by pressing one of the stop buttons.

MEASURING TEST MODE

When pressing the stop and forward buttons of deck B together and switch on the set,there are three special actions are available.

1 Solenoids
- Press CD Sync button.
- The coil of deck B is activated for 10 seconds immediately followed by activating the coil of deck A for 10 seconds.

2 Speed deck B
- Press Play > button of deck B.
- The fast play mode (HS) of deck B will be started.
- Press Stop button of deck B.
- Press Play < button of deck B.

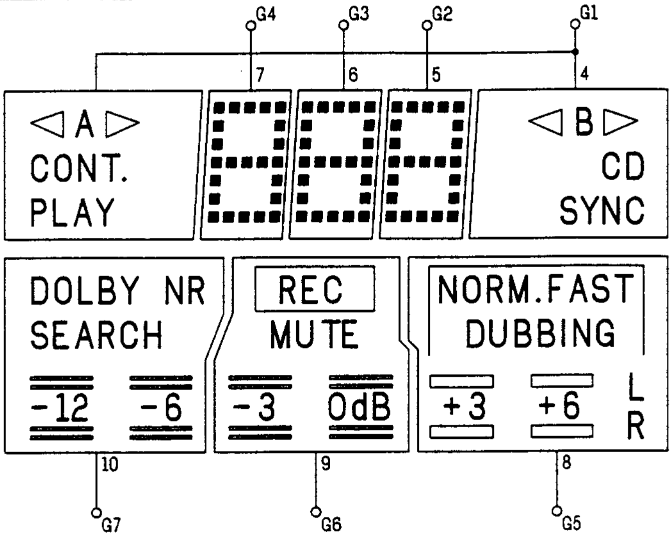
Deck B swichted over to the normal play mode (NS).

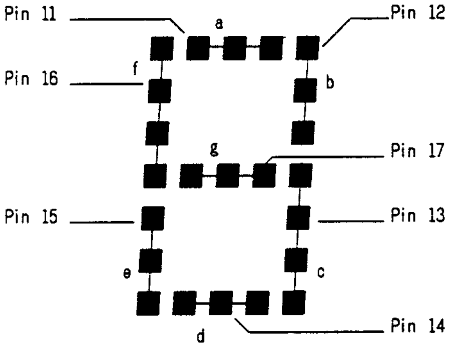
3 Speed deck A
- Press Play > button of deck A.
- The fast play mode (HS) of deck A will be started.
- Press Stop button of deck A.
- Press Play < button of deck A.

Deck A swichted over to the normal play mode (NS).

4 End of test mode
- Switch power off

GRID ASSIGMENT


G4
G3
G2
G1
7
6
5
4
◁ A ▷
CONT.
PLAY
◁ B ▷
CD
SYNC
DOLBY NR
SEARCH
REC
MUTE
NORM.FAST
DUBBING
-12
-6
-3
0dB
+3
+6
L
R
10
9
8
G7
G6
G5

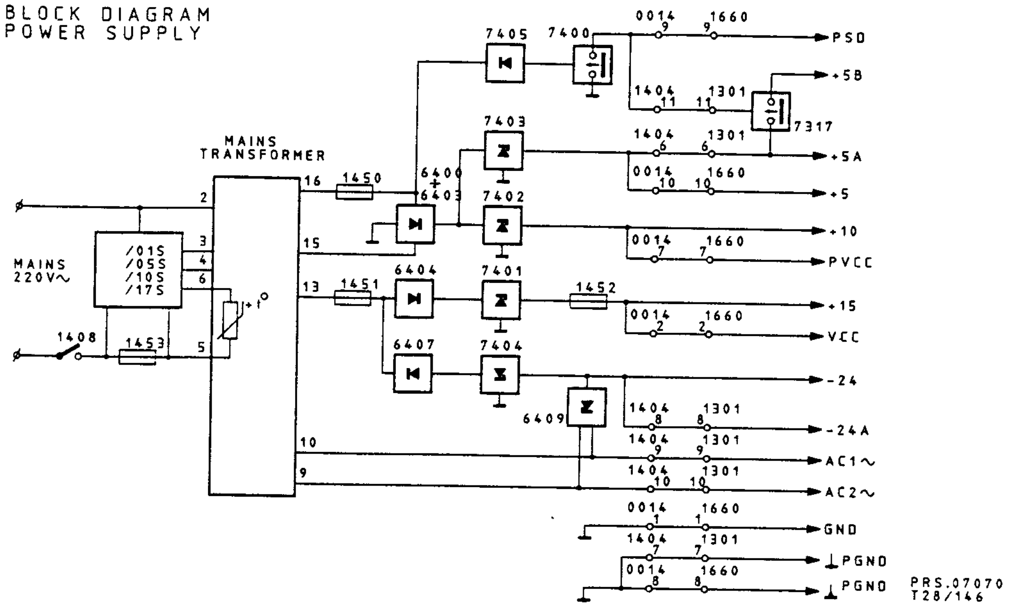

Pin 11
a
Pin 12
Pin 16
f
b
g
Pin 17
Pin 15
Pin 13
e
c
Pin 14
d

PIN CONNECTION

PIN NO	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F2	F2	NP	P8	P7	P6	P5	P4	P3	P2	P1	G7	G6	G5	G4	G3	G2	G1	NP	F1	F1

ANODE CONNECTION

	G7	G6	G5	G4	G3	G2	G1
P1	-	-	FAST	a	a	a	▷ right
P2	DOLBY NR	REC	NORM	b	b	b	◁ right
P3	SEARCH	MUTE	DUBBING	c	c	c	A B
P4	≡	≡	▭	d	d	d	▷ left
P5	≡	≡	▭	e	e	e	◁ left
P6	≡	≡	▭	f	f	f	CD SYNC.
P7	≡	≡	▭	g	g	g	CONT.PLAY
P8	-12 -6	-3 0dB	+3 +6 L R	-	-	-	-

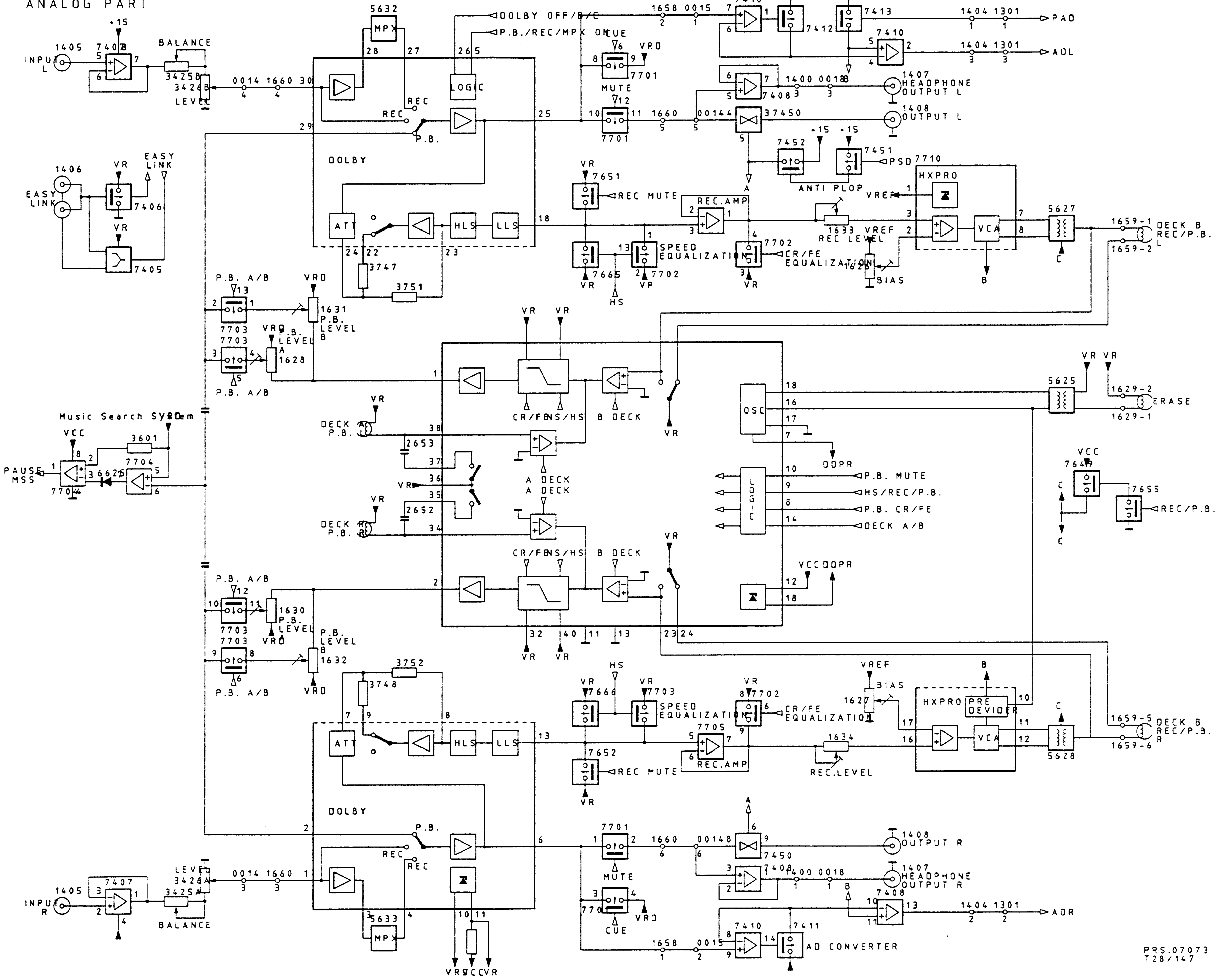


BLOCK DIAGRAM
POWER SUPPLY

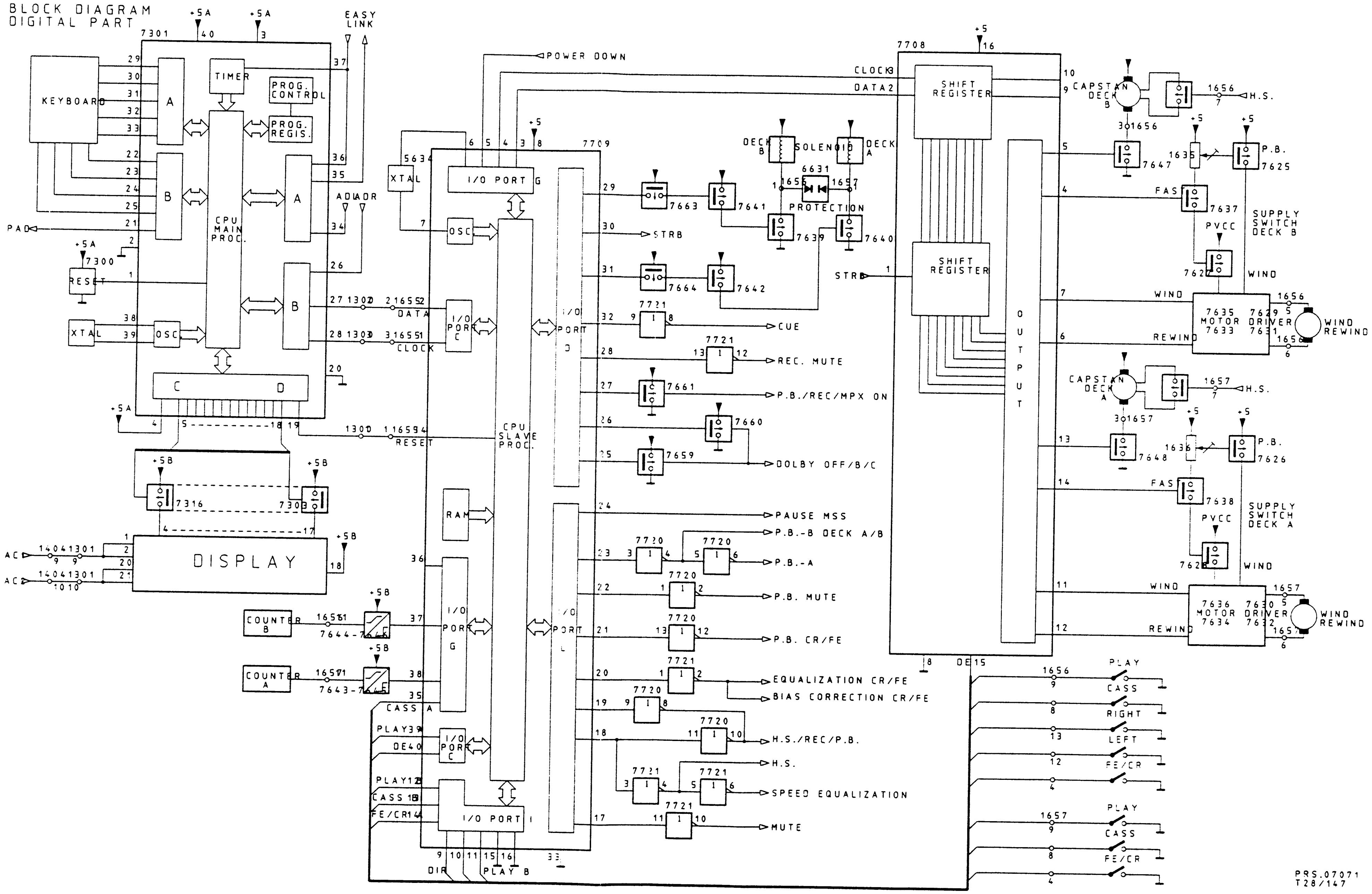
MAINS
TRANSFORMER
MAINS
220V~
/01S
/05S
/10S
/17S
1408
1453
2
3
4
5
6
16
15
13
10
9
1450
1451
1452
7405
7400
7403
7402
7401
7404
6400
6403
6404
6407
6409
7317
0014
1660
1404
1301
PSD
+5B
+5A
+5
+10
PVCC
+15
VCC
-24
-24A
AC1~
AC2~
GND
PGND
PGND
PRS.07070
T28/146

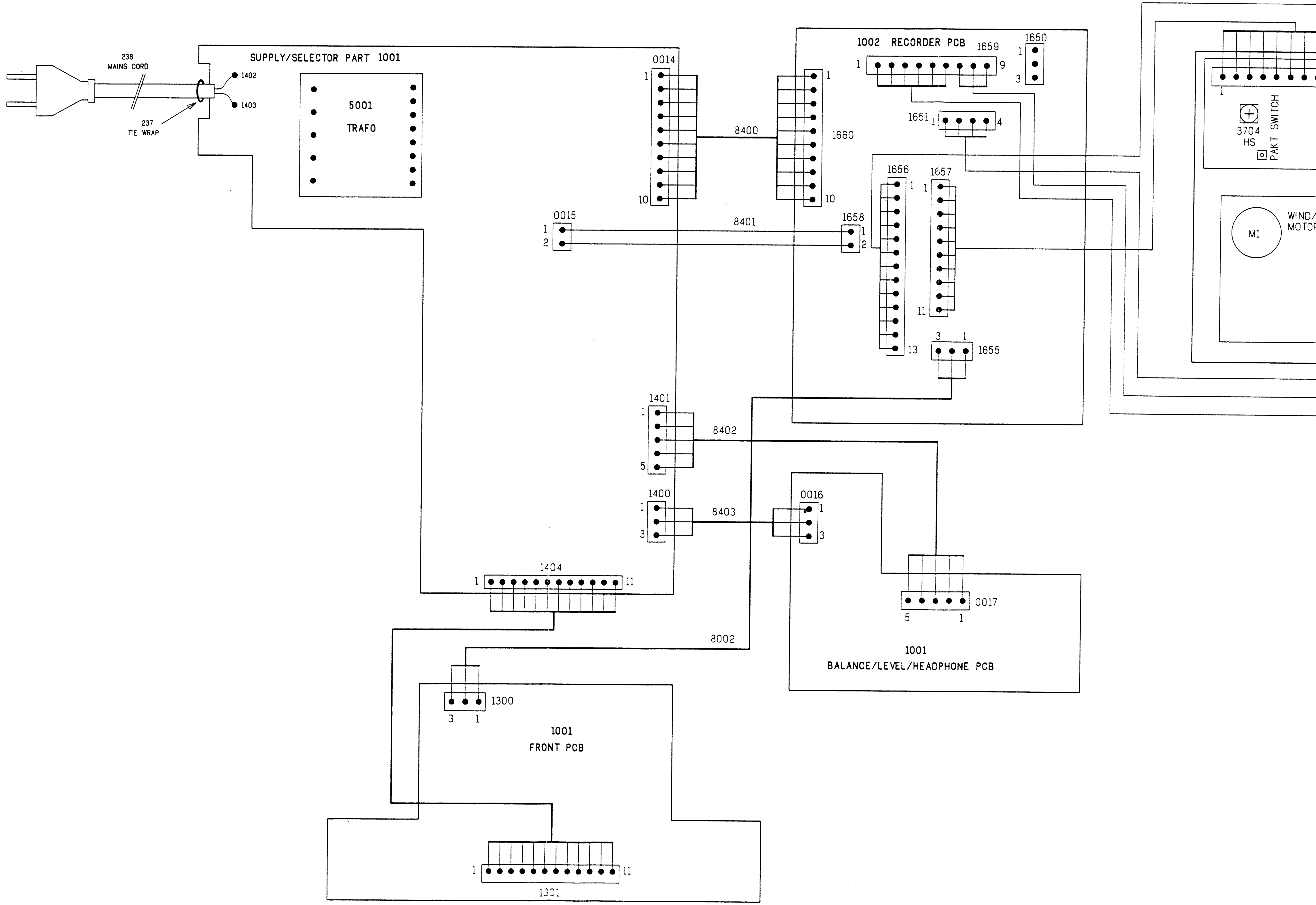
NOTES

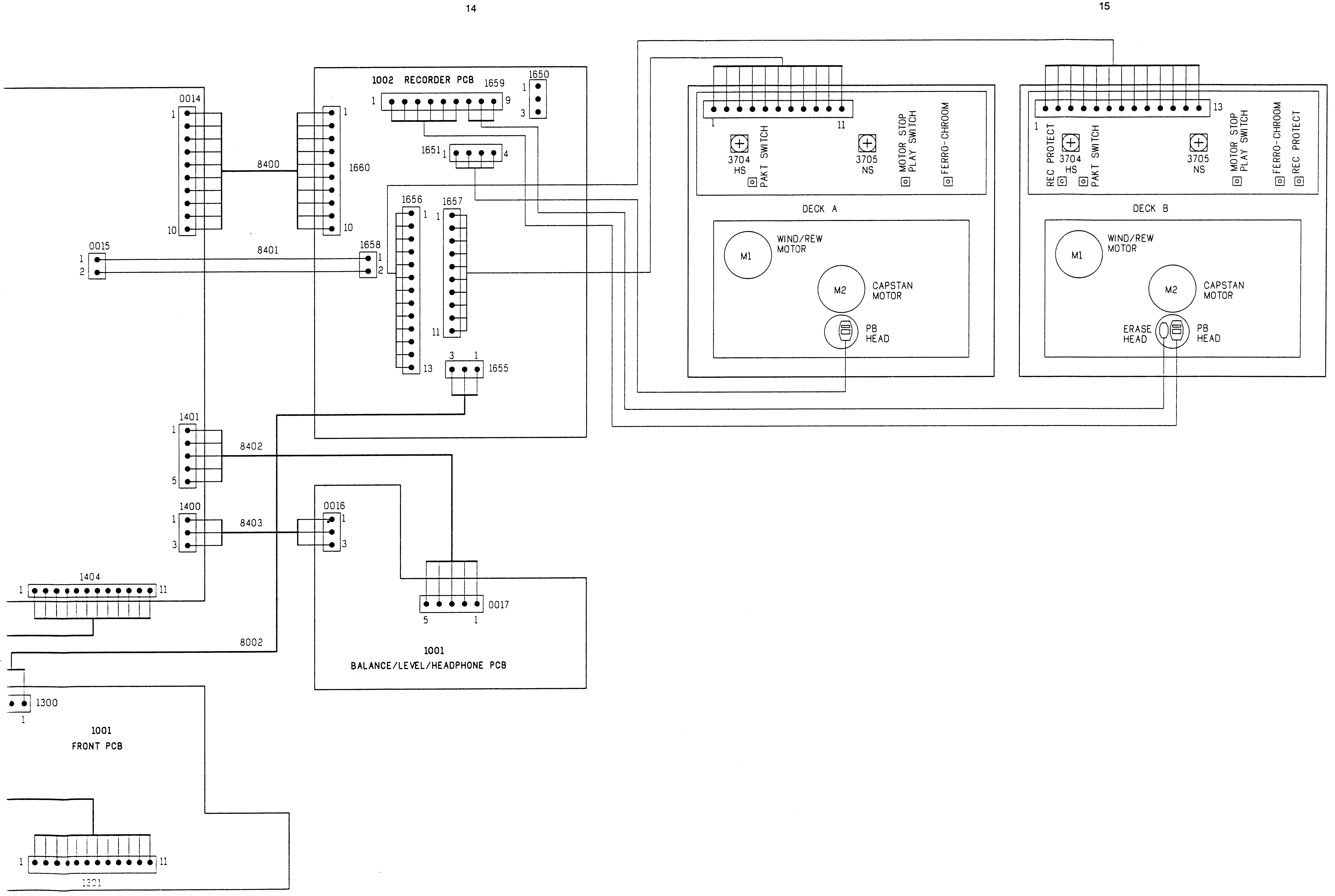
BLOCK DIAGRAM
ANALOG PART


INPUT L
1405
7407
+15
BALANCE
3425B
3426B
LEVEL
0014 1660
5632
MPX
DOLBY
LOGIC
REC
P.B.
ATT
HLS
LLS
DOLBY OFF/B/C
P.B./REC/MPX ON
CUE
VRO
MUTE
7701
1658 0015
AD CONVERTER
7410
7412
7413
+5
1404 1301
PAD
ADL
1407 HEADPHONE OUTPUT L
1400 0018
7408
1408 OUTPUT L
7450
7452
7451
ANTI PLOP
PSO
+15
7710
HXPRO
VREF
5627
1659-1
1659-2
DECK B REC/P.B. L
1406
EASY LINK
7406
7405
VR
7651
REC MUTE
REC.AMP
1633
REC LEVEL
BIAS
7702
CR/FE EQUALIZATION
SPEED EQUALIZATION
7665
HS
VP
3747
3751
P.B. A/B
7703
1631
P.B. LEVEL
1628
CR/FE
NS/HS
B DECK
A DECK
OSC
DOPR
P.B. MUTE
HS/REC/P.B.
P.B. CR/FE
DECK A/B
VCC
5625
1629-2
1629-1
ERASE
7649
7655
REC/P.B.
C
Music Search System
3601
7704
3662
PAUSE MSS
DECK A P.B.
DECK B P.B.
2653
2652
1630
1632
3752
3748
7666
7652
7705
1634
1627
PRE DEVIDER
5628
1659-5
1659-6
DECK B REC/P.B. R
1408 OUTPUT R
1407 HEADPHONE OUTPUT R
ADR
7411
INPUT R
5633
VRO
VCC
PRS.07073
T28/147

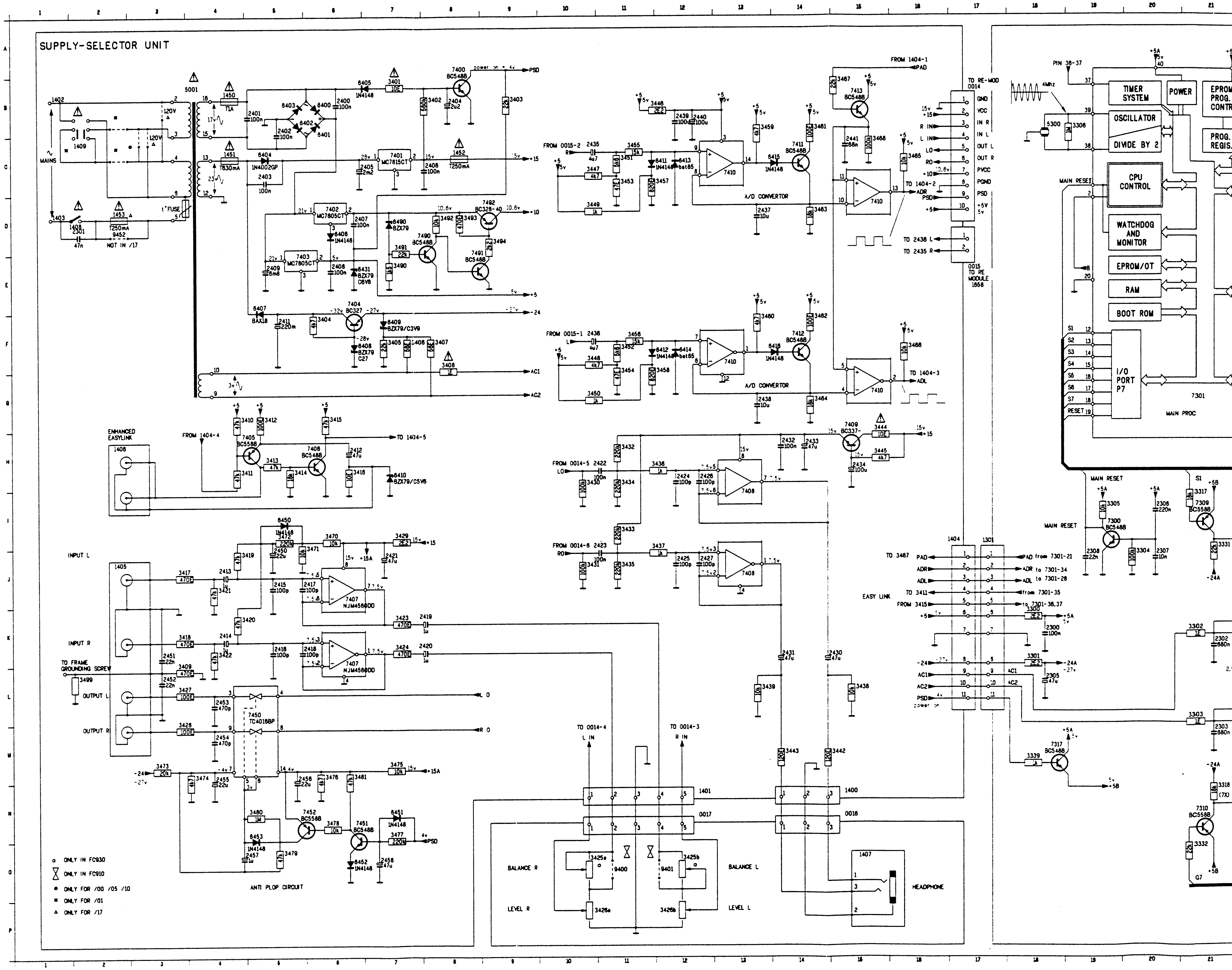
BLOCK DIAGRAM
DIGITAL PART

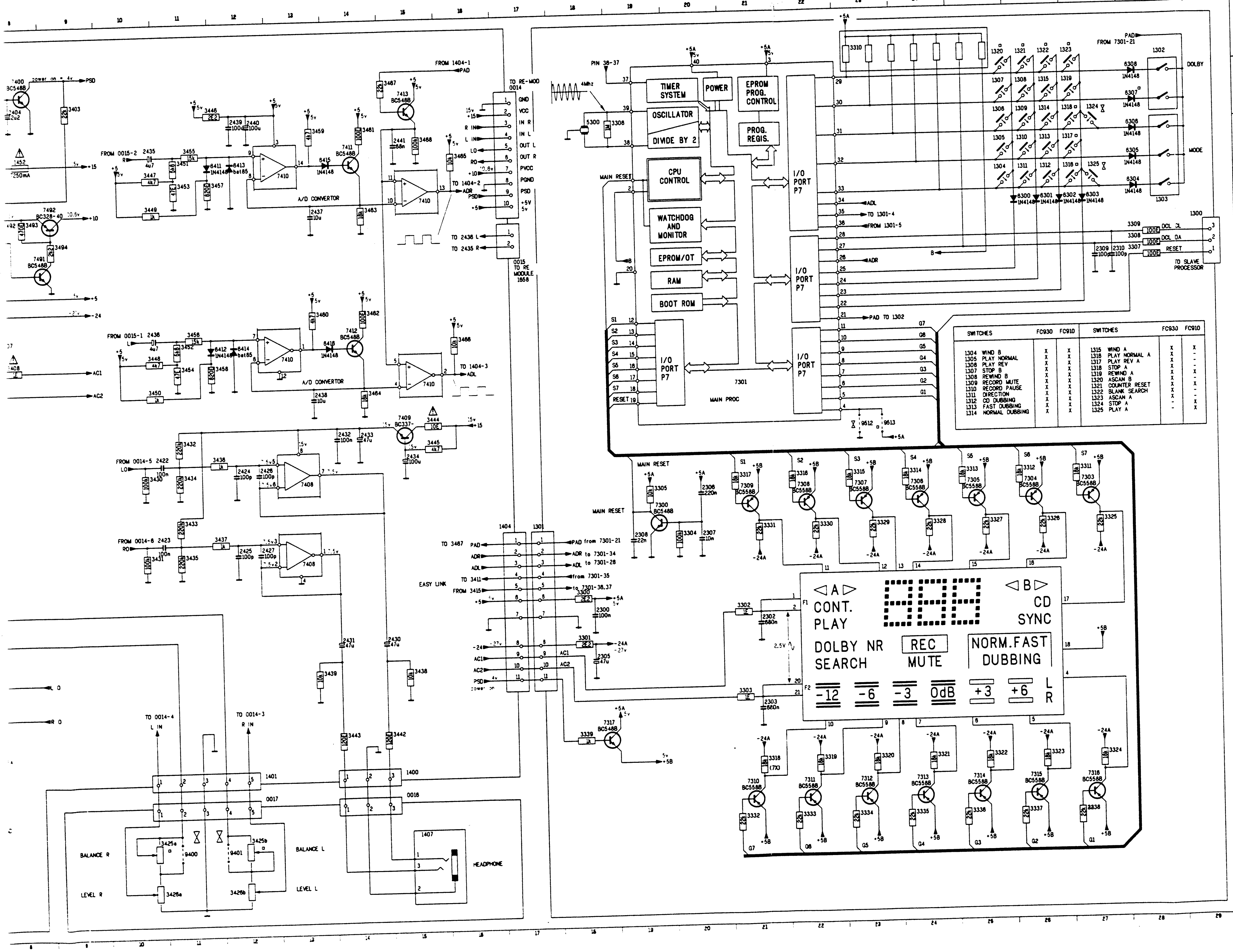

7301
+5A
40
+5A
3
EASY LINK
KEYBOARD
PAD
A
B
TIMER
PROG. CONTROL
PROG. REGIS.
CPU MAIN PROC.
7300
RESET
XTAL
OSC
C
D
DATA
CLOCK
RESET
AD
ADR
+5B
7316
7303
DISPLAY
AC
1404 1301
COUNTER B
COUNTER A
7644
7643
5634
XTAL
OSC
I/O PORT G
I/O PORT C
I/O PORT D
I/O PORT L
I/O PORT I
CPU SLAVE PROC.
RAM
7709
POWER DOWN
CASS A
PLAY 39
DE 40
PLAY 12
CASS 13
FE/CR 14
DIR
PLAY B
STRB
CUE
REC. MUTE
P.B./REC/MPX ON
DOLBY OFF/B/C
PAUSE MSS
P.B.-B DECK A/B
P.B.-A
P.B. MUTE
P.B. CR/FE
EQUALIZATION CR/FE
BIAS CORRECTION CR/FE
H.S./REC/P.B.
H.S.
SPEED EQUALIZATION
MUTE
7663
7664
7641
7642
7659
7660
7661
7720
7721
DECK B
SOLENOID
DECK A
6631
PROTECTION
7639
7640
7708
+5
CLOCK
DATA
SHIFT REGISTER
SHIFT REGISTER
OUTPUT
STRB
DE
CAPSTAN DECK B
CAPSTAN DECK A
1656
1657
H.S.
7647
7648
1635
1636
7625
7626
P.B.
FAS
7637
7638
PVCC
7627
7628
SUPPLY SWITCH DECK B
SUPPLY SWITCH DECK A
WIND
REWIND
7635 7629 MOTOR DRIVER 7633 7631
7636 7630 MOTOR DRIVER 7634 7632
WIND REWIND
PLAY
CASS
RIGHT
LEFT
FE/CR
PRS.07071
T28/147


MAINS CORD
TIE WRAP
SUPPLY/SELECTOR PART 1001
TRAFO
1002 RECORDER PCB
1659
1650
1660
1651
1656
1657
1658
1655
FRONT PCB
BALANCE/LEVEL/HEADPHONE PCB
HS
PAKT SWITCH
M1
WIND/
MOTO


14
15
1002 RECORDER PCB
1659
1
9
1650
1
3
1651
1
4
1660
1
10
1656
1
13
1657
1
11
1658
1
2
1655
3
1
0014
1
10
8400
0015
1
2
8401
1401
1
5
8402
1400
1
3
8403
0016
1
3
0017
5
1
1001
BALANCE/LEVEL/HEADPHONE PCB
1404
1
11
8002
1300
1
1001
FRONT PCB
1
11
1301
1
11
3704
HS
PAKT SWITCH
3705
NS
MOTOR STOP
PLAY SWITCH
FERRO-CHROOM
DECK A
M1
WIND/REW
MOTOR
M2
CAPSTAN
MOTOR
PB
HEAD
1
13
REC PROTECT
3704
HS
PAKT SWITCH
3705
NS
MOTOR STOP
PLAY SWITCH
FERRO-CHROOM
REC PROTECT
DECK B
M1
WIND/REW
MOTOR
M2
CAPSTAN
MOTOR
ERASE
HEAD
PB
HEAD

PCS 57 551


SUPPLY-SELECTOR UNIT
MAINS
120V
NOT IN /17
FUSE
5001
MC7815CT
MC7805CT
A/D CONVERTOR
FROM 0015-2
FROM 0015-1
FROM 0014-5
FROM 0014-6
TO RE-MOD 0014
0015 TO RE MODULE 1858
ENHANCED EASYLINK
FROM 1404-4
TO 1404-5
INPUT L
INPUT R
TO FRAME GROUNDING SCREW
OUTPUT L
OUTPUT R
TC4016BP
NJM4560DD
ANTI PLOP CIRCUIT
TO 0014-4 L IN
TO 0014-3 R IN
BALANCE R
BALANCE L
LEVEL R
LEVEL L
HEADPHONE
EASY LINK
MAIN RESET
TIMER SYSTEM
POWER
OSCILLATOR
DIVIDE BY 2
CPU CONTROL
WATCHDOG AND MONITOR
EPROM/OT
RAM
BOOT ROM
I/O PORT P7
7301
MAIN PROC
○ ONLY IN FC930
⧖ ONLY IN FC910
● ONLY FOR /00 /05 /10
■ ONLY FOR /01
△ ONLY FOR /17



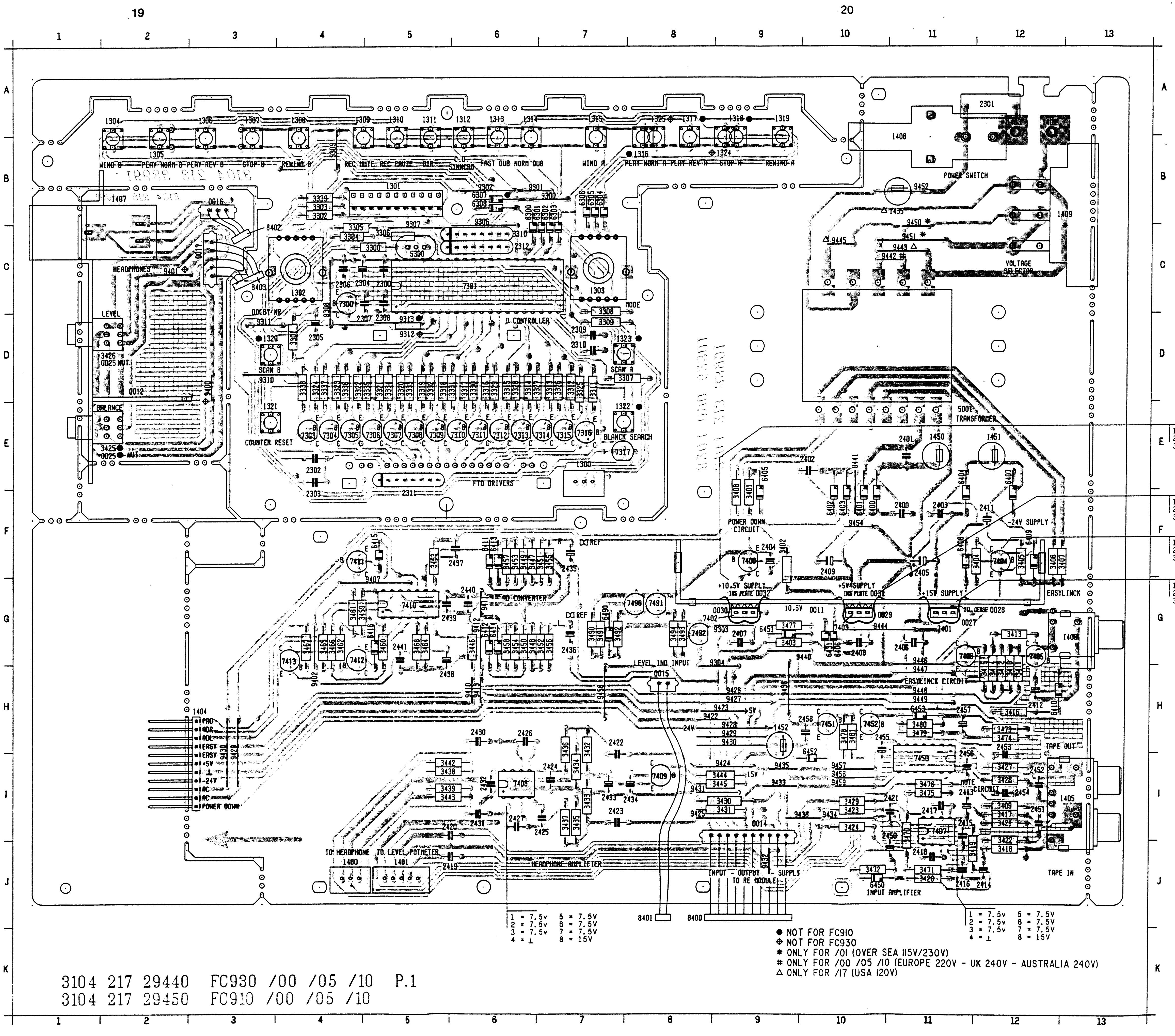
FROM 1404-1 PAD
TO RE-MOD 0014
GND
VCC
IN R
IN L
OUT L
OUT R
PGND
PSD
+5V
0015 TO RE MODULE 1658
A/D CONVERTOR
7410
7408
7409 BC337
7411 BC548B
7412 BC548B
7413 BC548B
7400 BC548B
7492 BC328-40
7491 BC548B
FROM 0015-2
FROM 0015-1
FROM 0014-5
FROM 0014-6
TO 1404-2
TO 1404-3
TO 2436
TO 2435
power on
PSD
TIMER SYSTEM
POWER
EPROM PROG. CONTROL
PROG. REGIS.
OSCILLATOR
DIVIDE BY 2
CPU CONTROL
WATCHDOG AND MONITOR
EPROM/OT
RAM
BOOT ROM
I/O PORT P7
4Mhz
PIN 38-37
MAIN RESET
7301
MAIN PROC
TO 1301-4
FROM 1301-5
PAD TO 1302
FROM 7301-21
DOLBY
MODE
1302
1303
1300
DCL CL
DCL DA
RESET
TO SLAVE PROCESSOR
1404
1301
PAD from 7301-21
ADR to 7301-34
ADL to 7301-28
from 7301-35
to 7301-38.37
EASY LINK
TO 3467
TO 3411
FROM 3415
◁A▷
CONT.
PLAY
◁B▷
CD
SYNC
DOLBY NR
SEARCH
REC
MUTE
NORM.FAST
DUBBING
-12
-6
-3
0dB
+3
+6
L
R
F1
F2
7317 BC548B
TO 0014-4 L IN
TO 0014-3 R IN
1401
0017
1400
0018
1407
HEADPHONE
BALANCE R
BALANCE L
LEVEL R
LEVEL L
3425a
3425b
3426a
3426b
9400
9401

SWITCHES	FC930	FC910
1304 WIND B	X	X
1305 PLAY NORMAL	X	X
1306 PLAY REV	X	X
1307 STOP B	X	X
1308 REWIND B	X	X
1309 RECORD MUTE	X	X
1310 RECORD PAUSE	X	X
1311 DIRECTION	X	X
1312 CD DUBBING	X	X
1313 FAST DUBBING	X	X
1314 NORMAL DUBBING	X	X

SWITCHES	FC930	FC910
1315 WIND A	X	X
1316 PLAY NORMAL A	X	-
1317 PLAY REV A	X	-
1318 STOP A	X	-
1319 REWIND A	X	X
1320 ASCAN B	X	-
1321 COUNTER RESET	X	X
1322 BLANK SEARCH	X	-
1323 ASCAN A	X	-
1324 STOP A	-	X
1325 PLAY A	-	X

■■■■	B 2	3422	K 4
■■■■	C 2	3423	K 7
■■■■	C 2	3424	K 7
120V	B 3	3426	P10
120V	B 3	3426	P12
1304	C25	3427	L 3
1305	C25	3428	L 3
1306	B25	3429	I 7
1307	B25	3430	H10
1308	B26	3431	J10
1309	B26	3432	H11
1310	C26	3433	I11
1311	C26	3434	H11
1312	C26	3435	J11
1313	C26	3436	H12
1314	B26	3437	I12
1315	B26	3438	L15
1316	C27	3439	L13
1317	C27	3442	M14
1318	B27	3443	M14
1319	B27	3444	G15
1320	A25	3445	H15
1321	A26	3446	B12
1322	A26	3447	C10
1323	A27	3448	F10
1324	B27	3449	D10
1325	C27	3450	G10
1407	O15	3451	C11
1450	B 4	3452	F11
1451	C 4	3453	C11
1452	C 8	3454	F11
1453	D 2	3455	C11
22	O27	3456	F11
2300	K18	3457	C11
2301	O 2	3458	F11
2302	K21	3459	B13
2303	M21	3460	F13
2305	L18	3461	B14
2306	I20	3462	F14
2307	J20	3463	O14
2308	J19	3464	G14
2309	E27	3465	C16
2310	E27	3466	F16
2400	B 6	3467	B15
2401	B 4	3468	C15
2402	B 5	3470	I 6
2403	C 5	3471	I 5
2404	B 8	3472	I 5
2405	C 6	3473	M 3
2406	C 7	3474	M 4
2407	D 6	3475	M 7
2408	E 6	3476	M 6
2409	E 5	3477	N 7
2411	F 5	3478	N 6
2412	H 6	3479	O 5
2413	J 4	3480	N 5
2414	K 4	3481	M 6
2415	J 5	3490	E 7
2416	K 5	3491	D 7
2417	J 5	3492	D 8
2418	K 5	3493	D 8
2419	K 8	3494	D 9
2420	K 8	3499	L 2
2421	J 7	5001	B 4
2422	H11	6300	D26
2423	I11	6301	D26
2424	H12	6302	D26
2425	J12	6303	D27
2426	H12	6304	D28
2427	J12	6305	C28
2430	K14	6306	C28
2431	K14	6307	B28
2432	H14	6308	B28
2433	H14	6404	C 5
2434	H15	6405	B 7
2435	C10	6406	D 6
2436	F10	6407	E 5
2437	D13	6408	F 6
2438	G13	6409	F 7
2439	B12	6410	H 7
2440	B12	6411	C11
2441	C15	6412	F11
2450	J 5	6413	C12
2451	K 3	6414	F12
2452	L 3	6415	C14
2453	L 4	6416	F14
2454	M 4	6431	E 6
2455	M 4	6450	I 5
2456	M 5	6451	N 7
2457	O 4	6452	O 6
2458	O 7	6453	N 5
3300	K18	6490	O 7
3301	K18	7300	I19
3302	K21	7301	G21
3303	L21	7303	I27
3304	J20	7304	I26
3305	I19	7305	I25
3306	B19	7306	I24
3307	E28	7307	I23
3308	E28	7308	I22
3309	D28	7309	I21
3310	A23	7310	N21
3311	I27	7311	N22
3312	I26	7312	N23
3313	I25	7313	N24
3314	I24	7314	N25
3315	I23	7315	N26
3316	I22	7316	N27
3317	I21	7317	M18
3318	N21	7400	A 8
3319	N22	7401	C 7
3320	N23	7402	D 6
3321	N24	7403	E 5
3322	N25	7404	E 5
3323	N26	7405	H 5
3324	N27	7406	H 6
3325	I27	7407	J 6
3326	I26	7407	K 5
3327	I25	7408	I13
3328	I24	7408	J13
3329	I23	7409	G15
3330	I22	7410	C13
3331	I21	7410	F13
3332	O21	7410	O15
3333	O22	7410	G15
3334	O23	7411	C14
3335	O24	7412	F14
3336	O25	7413	B15
3337	O26	7450	L 5
3338	O27	7451	N 5
3339	M18	7452	N 5
3401	B 7	7490	D 8
3402	B 8	7491	D 8
3403	B 9	7492	D 9
3404	F 6	9400	O11
3405	F 7	9401	O11
3406	F 7	9452	D 2
3407	F 8	9512	H23
3408	F 8	9513	H23
3409	K 3		
3410	G 4		
3411	H 4		
3412	G 5		
3413	H 5		
3414	H 5		
3415	G 6		
3416	H 6		
3417	J 3		
3418	K 3		
3419	J 4		
3420	K 4		
3421	J 4		

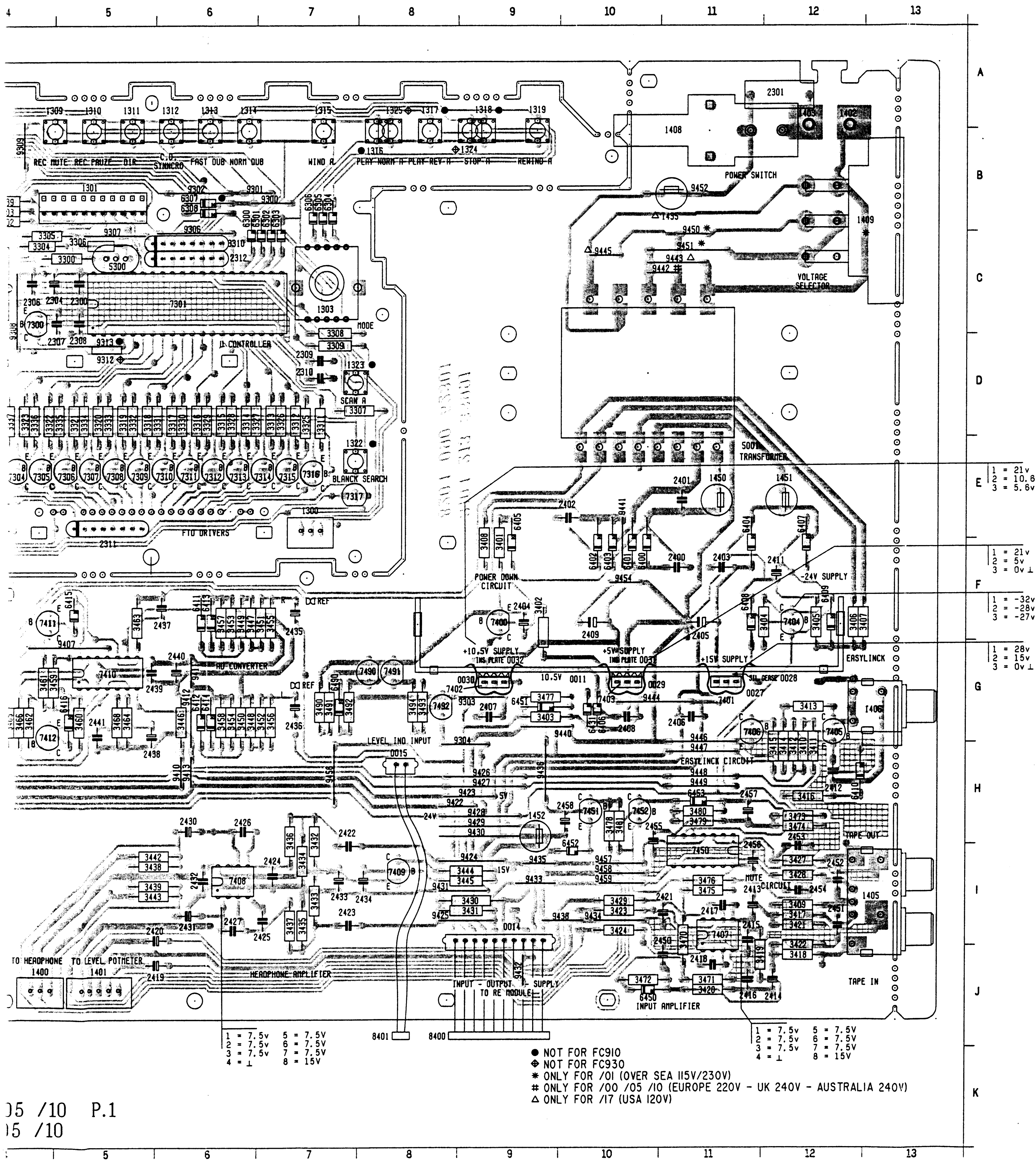
0011	G10	3304	C 4	5001	E11	9445	C10
0012	D 2	3305	C 4	5300	C 5	9446	G11
0014	I 9	3306	C 5	6300	B 6	9447	H11
0015	H 8	3307	D 8	6301	B 6	9448	H11
0016	B 3	3308	D 7	6302	B 7	9449	H11
0017	C 3	3309	D 7	6303	B 7	9450	C11
0025	E 2	3310	C 6	6304	B 7	9451	C11
0025	D 2	3311	D 7	6305	B 7	9452	B11
0027	G11	3312	D 7	6306	B 7	9454	F10
0028	G12	3313	D 7	6307	B 6	9456	H 7
0029	G10	3314	D 6	6308	B 6	9457	I10
0030	G 9	3315	D 6	6400	F10	9458	I10
0031	G10	3316	D 6	6401	F10	9459	I10
0032	G 9	3317	D 6	6402	F10		
1300	E 7	3318	D 5	6403	F10		
1301	B 5	3319	D 5	6404	E11		
1302	C 4	3320	D 5	6405	E 9		
1303	C 7	3321	D 5	6406	G10		
1304	A 2	3322	D 4	6407	E12		
1305	B 2	3323	D 4	6408	F11		
1306	A 3	3324	D 4	6409	F12		
1307	A 3	3325	D 7	6410	H12		
1308	A 4	3326	D 7	6411	F 6		
1309	A 4	3327	D 7	6412	G 6		
1310	A 5	3328	D 6	6413	F 6		
1311	A 5	3329	D 6	6414	G 6		
1312	A 6	3330	D 6	6415	F 5		
1313	A 6	3331	D 6	6416	G 5		
1314	A 6	3332	D 5	6431	G10		
1315	A 7	3333	D 5	6450	J11		
1316	B 8	3334	D 5	6451	G 9		
1317	A 8	3335	D 5	6452	I10		
1318	A 9	3336	D 4	6453	H11		
1319	A 9	3337	D 4	6490	G 7		
1320	D 3	3338	D 4	7300	C 4		
1321	E 3	3339	B 4	7301	C 6		
1322	E 7	3401	F 9	7303	E 4		
1323	D 7	3402	F 9	7304	E 4		
1324	B 9	3403	G 9	7305	E 4		
1325	A 8	3404	F12	7306	E 5		
1400	J 4	3405	F12	7307	E 5		
1401	J 5	3406	F12	7308	E 5		
1402	A12	3407	F13	7309	E 5		
1403	A12	3408	F 9	7310	E 6		
1404	H 3	3409	I12	7311	E 6		
1405	I13	3410	H12	7312	E 6		
1406	G13	3411	H12	7313	E 6		
1407	B 2	3412	H12	7314	E 7		
1408	B11	3413	G12	7315	E 7		
1409	B13	3414	H12	7316	E 7		
1435	B11	3415	H12	7317	E 7		
1450	E11	3416	H12	7400	F 9		
1451	E12	3417	I12	7401	G11		
1452	H 9	3418	J12	7402	G 8		
2300	C 5	3419	J12	7403	G10		
2301	A12	3420	J11	7404	F12		
2302	E 4	3421	I12	7405	G12		
2303	F 4	3422	J12	7406	G11		
2304	C 4	3423	I10	7407	I11		
2305	D 4	3424	I10	7408	I 6		
2306	C 4	3425	E 2	7409	I 8		
2307	D 5	3426	D 2	7410	G 5		
2308	D 5	3427	I12	7411	F 4		
2309	D 7	3428	I12	7412	G 4		
2310	D 7	3429	I10	7413	G 4		
2311	F 5	3430	I 9	7450	I11		
2312	C 6	3431	I 9	7451	H10		
2400	F11	3432	H 7	7452	H10		
2401	E11	3433	I 7	7490	G 8		
2402	E10	3434	I 7	7491	G 8		
2403	F11	3435	I 7	7492	G 8		
2404	F 9	3436	H 7	8400	J 8		
2405	F11	3437	I 7	8401	J 8		
2406	G11	3438	I 5	8402	C 3		
2407	G 9	3439	I 5	8403	C 3		
2408	G10	3442	I 5	9300	B 7		
2409	F10	3443	I 5	9301	B 6		
2411	F12	3444	I 9	9302	B 6		
2412	H12	3445	I 9	9303	G 9		
2413	I11	3446	G 6	9304	H 9		
2414	J12	3447	F 6	9306	C 6		
2415	I11	3448	G 6	9307	C 5		
2416	J11	3449	F 6	9308	C 4		
2417	I11	3450	G 6	9309	B 4		
2418	J11	3451	F 7	9310	D 3		
2419	J 6	3452	G 7	9311	D 3		
2420	I 6	3453	F 6	9312	D 5		
2421	I11	3454	G 6	9313	D 5		
2422	H 7	3455	F 7	9400	D 3		
2423	I 7	3456	G 7	9401	C 2		
2424	I 7	3457	F 6	9402	H 4		
2425	I 7	3458	G 6	9407	G 5		
2426	H 6	3459	G 5	9410	H 6		
2427	I 6	3460	G 5	9411	G 6		
2430	H 6	3461	G 4	9412	G 6		
2431	I 6	3462	G 4	9413	H 6		
2432	I 6	3463	F 5	9422	H 8		
2433	I 7	3464	G 5	9423	H 9		
2434	I 8	3465	G 4	9424	I 9		
2435	F 7	3466	G 4	9425	I 8		
2436	G 7	3467	G 4	9426	H 9		
2437	F 6	3468	G 5	9427	H 9		
2438	H 5	3470	I11	9428	H 9		
2439	G 5	3471	J11	9429	H 9		
2440	G 6	3472	J10	9429	H 3		
2441	G 5	3473	H12	9430	H 9		
2450	I11	3474	H12	9430	H 3		
2451	I12	3475	I11	9431	I 8		
2452	I12	3476	I11	9432	J 9		
2453	H12	3477	G 9	9433	I 9		
2454	I12	3478	H10	9434	I10		
2455	H10	3479	H11	9435	I 9		
2456	I11	3480	H11	9436	H 9		
2457	H11	3481	H10	9438	I10		
2458	H10	3490	G 7	9440	G10		
3300	C 5	3491	G 7	9441	E10		
3301	D 4	3492	G 7	9442	C11		
3302	B 4	3493	G 8	9443	C11		
3303	B 4	3494	G 8	9444	G10		


19
20
NO
1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I J K
WIND B
PLAY NORM B
PLAY REV B
STOP B
REWIND B
REC MUTE
REC PAUZE
DIR
C.D. SINKCRO
FAST DUB
NORM DUB
WIND A
PLAY NORM A
PLAY REV A
STOP A
REWIND A
POWER SWITCH
VOLTAGE SELECTOR
HEADPHONES
LEVEL
BALANCE
DOLBY NR
SCAN B
SCAN A
MODE
µ CONTROLLER
COUNTER RESET
BLANCK SEARCH
FTD DRIVERS
5001 TRANSFORMER
POWER DOWN CIRCUIT
-24V SUPPLY
+10.5V SUPPLY
+5V SUPPLY
+15V SUPPLY
EASYLINCK
EASYLINCK CIRCUIT
AD CONVERTER
DC REF
LEVEL IND INPUT
TAPE OUT
MUTE CIRCUIT
TAPE IN
INPUT AMPLIFIER
HEADPHONE AMPLIFIER
TO HEADPHONE
TO LEVEL POTMETER
INPUT - OUTPUT - SUPPLY TO RE MODULE
PRO
ADR
ADL
EASY
EASY
+5V
-24V
AC
AC
POWER DOWN
1 = 21v
2 = 10.6v
3 = 5.6v
1 = 21v
2 = 5v
3 = 0v ⊥
1 = -32v
2 = -28v
3 = -27v
1 = 28v
2 = 15v
3 = 0v ⊥
1 = 7.5v 5 = 7.5v
2 = 7.5v 6 = 7.5v
3 = 7.5v 7 = 7.5v
4 = ⊥ 8 = 15v
1 = 7.5v 5 = 7.5v
2 = 7.5v 6 = 7.5v
3 = 7.5v 7 = 7.5v
4 = ⊥ 8 = 15v

● NOT FOR FC910
⊕ NOT FOR FC930
* ONLY FOR /01 (OVER SEA 115V/230V)
# ONLY FOR /00 /05 /10 (EUROPE 220V - UK 240V - AUSTRALIA 240V)
△ ONLY FOR /17 (USA 120V)

3104 217 29440 FC930 /00 /05 /10 P.1
3104 217 29450 FC910 /00 /05 /10

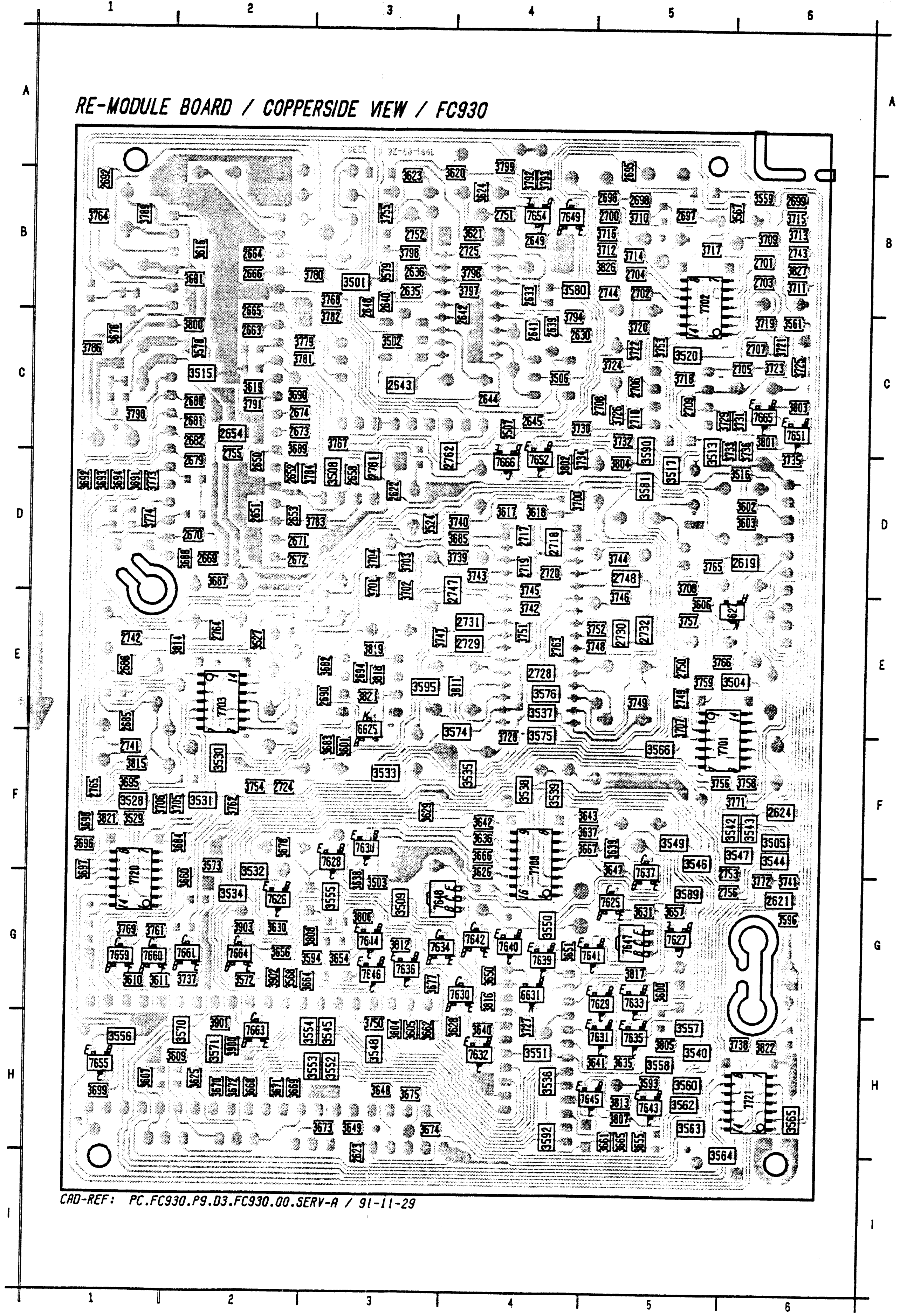
NOTES

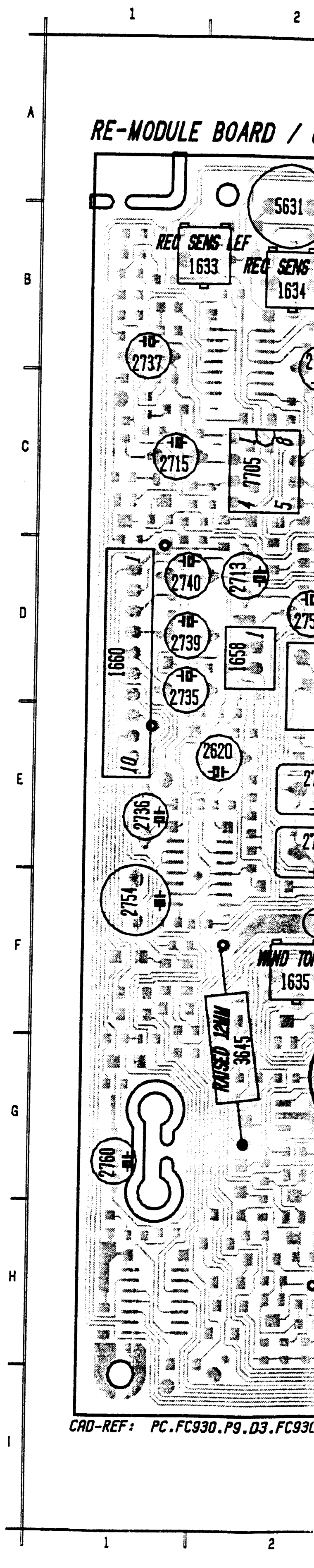


REC MUTE
REC PAUZE
DIR
C.D. SYNNCRO
FAST DUB
NORM DUB
WIND A
PLAY NORM A
PLAY REV A
STOP A
REWIND A
POWER SWITCH
VOLTAGE SELECTOR
MODE
µ CONTROLLER
SCAN A
BLANCK SEARCH
FTD DRIVERS
5001 TRANSFORMER
POWER DOWN CIRCUIT
+10,5V SUPPLY
+5V SUPPLY
+15V SUPPLY
-24V SUPPLY
EASYLINCK
EASYLINCK CIRCUIT
AD CONVERTER
DC REF
LEVEL IND INPUT
TAPE OUT
TAPE IN
MUTE CIRCUIT
INPUT AMPLIFIER
HEADPHONE AMPLIFIER
TO HEADPHONE 1400
TO LEVEL POTMETER 1401
INPUT - OUTPUT - SUPPLY TO RE MODULE
8401
8400
1 = 21v
2 = 10.6v
3 = 5.6v
1 = 21v
2 = 5v
3 = 0v ⊥
1 = -32v
2 = -28v
3 = -27v
1 = 28v
2 = 15v
3 = 0v ⊥
1 = 7.5v 5 = 7.5v
2 = 7.5v 6 = 7.5v
3 = 7.5v 7 = 7.5v
4 = ⊥ 8 = 15V
05 /10 P.1
05 /10
A B C D E F G H I J K
4 5 6 7 8 9 10 11 12 13

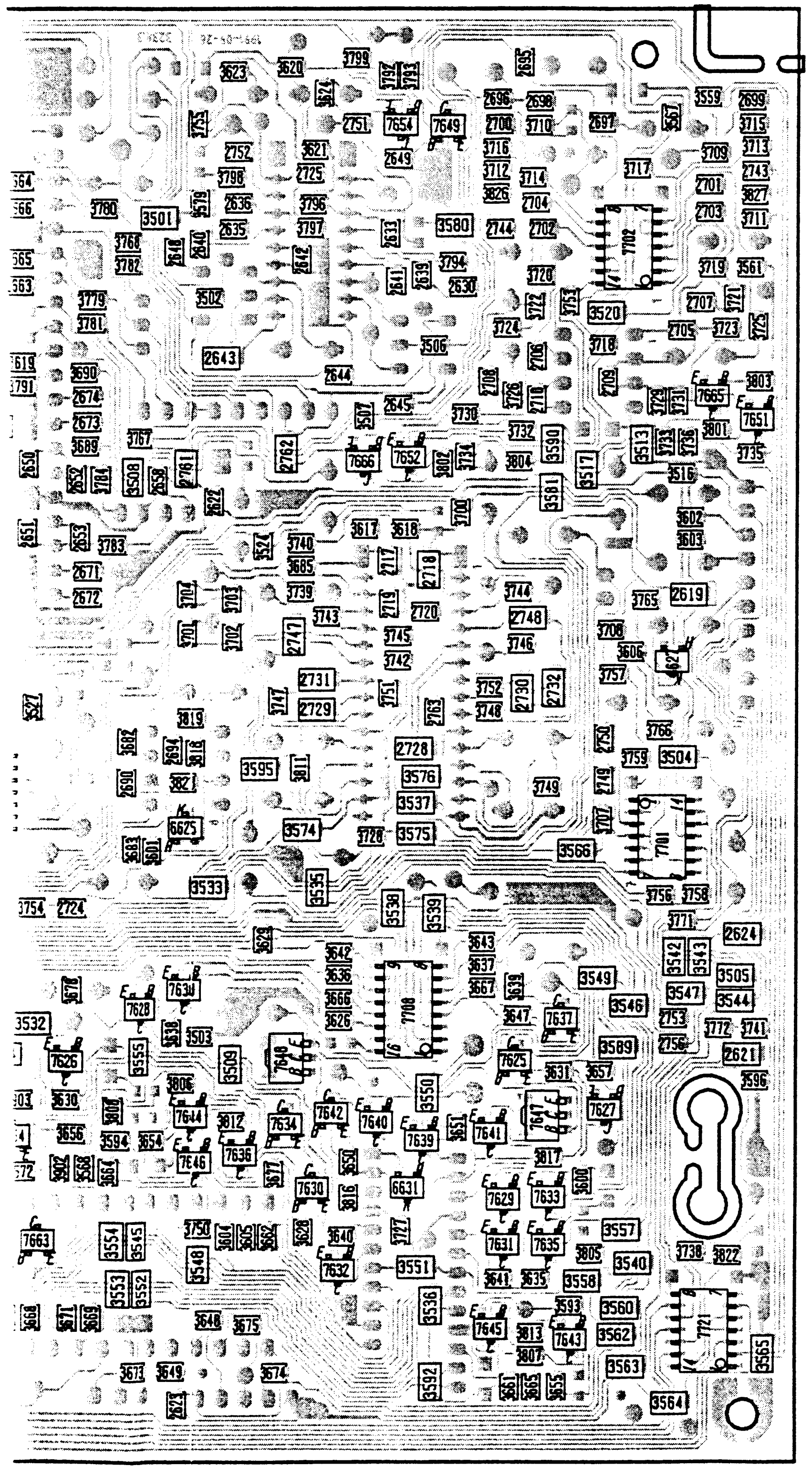
● NOT FOR FC910
⊕ NOT FOR FC930
✱ ONLY FOR /01 (OVER SEA 115V/230V)
# ONLY FOR /00 /05 /10 (EUROPE 220V - UK 240V - AUSTRALIA 240V)
△ ONLY FOR /17 (USA 120V)

2619	D 6
2621	G 6
2622	D 3
2623	H 3
2624	F 6
2630	C 4
2633	B 4
2635	B 3
2636	B 3
2639	C 4
2640	B 3
2641	C 4
2642	C 4
2643	C 3
2644	C 4
2645	C 4
2648	B 3
2649	B 4
2650	D 2
2651	D 2
2652	D 2
2653	D 2
2654	C 2
2658	D 3
2663	C 2
2664	B 2
2665	C 2
2666	B 2
2669	D 2
2670	D 2
2671	D 2
2672	D 2
2673	C 2
2674	C 2
2679	D 2
2680	C 2
2681	C 2
2682	C 2
2685	E 1
2686	E 1
2690	E 3
2692	B 1
2694	E 3
2695	A 5
2696	B 5
2697	B 5
2698	B 5
2699	B 6
2700	B 5
2701	B 6
2702	B 5
2703	B 6
2704	B 5
2705	C 6
2706	C 5
2707	C 6
2708	C 5
2709	C 5
2710	C 5
2717	D 4
2718	D 4
2719	D 4
2720	D 4
2724	F 2
2725	B 4
2728	E 4
2729	E 4
2730	E 5
2731	E 4
2732	E 5
2741	F 1
2742	E 1
2743	B 6
2744	B 5
2747	D 4
2748	D 5
2749	E 5
2750	E 5
2751	B 4
2752	B 3
2753	F 6
2755	D 2
2756	G 6
2761	D 3
2762	D 3
2763	E 4
2764	E 2
2765	F 1
3501	B 3
3502	C 3
3503	G 3
3504	E 6
3505	F 6
3506	C 4
3507	C 4
3508	D 3
3509	G 3
3513	C 5
3515	C 2
3516	D 6
3517	D 5
3520	C 5
3524	D 3
3527	E 2
3528	F 1
3529	F 1
3530	F 2
3531	F 2
3532	G 2
3533	F 3
3534	G 2
3535	F 4
3536	H 4
3537	E 4
3538	F 4
3539	F 4
3540	H 5
3542	F 6
3543	F 6
3544	F 6
3545	H 3
3546	F 5
3547	F 6
3548	H 3
3549	F 5
3550	G 4
3551	H 4
3552	H 3
3553	H 3
3554	H 3
3555	G 3
3556	H 1
3557	H 5
3558	H 5
3559	B 6
3560	H 5
3561	C 6
3562	H 5
3563	H 5
3564	H 6
3565	H 6
3566	F 5
3567	B 6
3568	G 2
3570	H 2
3571	H 2
3572	G 2
3573	F 2
3574	E 4
3575	F 4
3576	E 4
3578	C 2
3579	B 3
3580	B 4
3581	D 5
3589	G 5
3590	C 5
3592	H 4
3593	H 5
3594	G 3
3595	E 3
3596	G 6
3600	G 5
3601	F 3
3602	D 6
3603	D 6
3604	H 3
3605	H 3
3606	E 5
3607	H 1
3609	H 2
3610	G 1
3611	G 1
3616	B 2
3617	D 4
3618	D 4
3619	C 2
3620	B 4
3621	B 4
3623	B 3
3624	B 4
3625	H 2
3626	F 4
3628	H 4
3629	F 3
3630	G 2
3631	G 5
3635	H 5
3636	F 4
3637	F 5
3638	G 3
3639	F 5
3640	H 4
3641	H 5
3642	F 4
3643	F 5
3647	F 5
3648	H 3
3649	H 3
3650	G 4
3651	G 4
3654	G 3
3655	H 5
3656	G 2
3657	G 5
3660	G 2
3661	H 5
3662	H 3
3664	G 3
3665	H 5
3666	F 4
3667	F 5
3668	H 2
3669	H 2
3670	H 2
3671	H 2
3672	H 2
3673	H 3
3674	H 3
3675	H 3
3676	C 1
3677	G 3
3678	F 2
3681	B 2
3682	E 3
3683	F 3
3684	F 2
3685	D 4
3687	D 2
3688	D 2
3689	C 2
3690	C 2
3691	D 1
3692	D 1
3693	D 1
3694	D 1
3695	F 1
3696	F 1
3697	F 1
3698	F 1
3699	H 1
3700	D 4
3701	D 3
3702	D 3
3703	D 3
3704	D 3
3705	F 2
3706	F 1
3707	E 5
3708	D 5
3709	B 6
3710	B 5
3711	B 6
3712	B 5
3713	B 6
3714	B 5
3715	B 6
3716	B 5
3717	B 5
3718	C 5
3719	C 6
3720	C 5
3721	C 6
3722	C 5
3723	C 6
3724	C 5
3725	C 6
3726	C 5
3727	H 4
3728	F 4
3729	C 5
3730	C 4
3731	C 6
3732	C 5
3733	C 5
3734	D 4
3735	D 6
3736	C 6
3737	G 2
3738	H 6
3739	D 4
3740	D 4
3741	G 6
3742	E 4
3743	D 4
3744	D 5
3745	D 4
3746	E 5
3747	E 3
3748	E 5
3749	E 5
3750	H 3
3751	E 4
3752	E 5
3753	C 5
3754	F 2
3755	B 3
3756	F 5
3757	E 5
3758	F 6
3759	E 5
3761	G 1
3762	F 2
3764	B 1
3765	D 5
3766	E 5
3767	C 3
3768	B 3
3769	G 1
3771	F 6
3772	G 6
3773	D 1
3774	D 1
3779	C 2
3780	B 3
3781	C 2
3782	C 3
3783	D 3
3784	D 2
3786	C 1
3789	B 1
3790	C 1
3791	C 2
3792	B 4
3793	B 4
3794	C 4
3796	B 4
3797	B 4
3798	B 3
3799	A 4
3800	C 2
3801	C 6
3802	D 4
3803	C 6
3804	D 5
3805	H 5
3806	G 3
3807	H 5
3808	G 3
3811	E 4
3812	G 3
3813	H 5
3814	E 2
3815	F 1
3816	G 4
3817	G 5
3818	E 3
3819	E 3
3821	F 1
3822	H 6
3823	E 3
3826	B 5
3827	B 6
3900	H 2
3901	H 2
3902	G 2
3903	G 2
6625	E 3
6627	E 6
6631	G 4
7625	G 5
7626	G 2
7627	G 5
7628	F 3
7629	G 5
7630	G 4
7631	H 5
7632	H 4
7633	G 5
7634	G 3
7635	H 5
7636	G 3
7637	F 5
7638	F 3
7639	G 4
7640	G 4
7641	G 5
7642	G 4
7643	H 5
7644	G 3
7645	H 5
7646	G 3
7647	G 5
7648	G 3
7649	B 4
7651	C 6
7652	D 4
7654	B 4
7655	H 1
7659	G 1
7660	G 1
7661	G 2
7663	H 2
7664	G 2
7665	C 6
7666	D 4
7701	F 5
7702	B 5
7703	E 2
7708	F 4
7720	G 1
7721	H 6


RE-MODULE BOARD / COPPERSIDE VIEW / FC930
1
2
3
4
5
6
A
B
C
D
E
F
G
H
I
CAD-REF: PC.FC930.P9.D3.FC930.00.SERV-A / 91-11-29

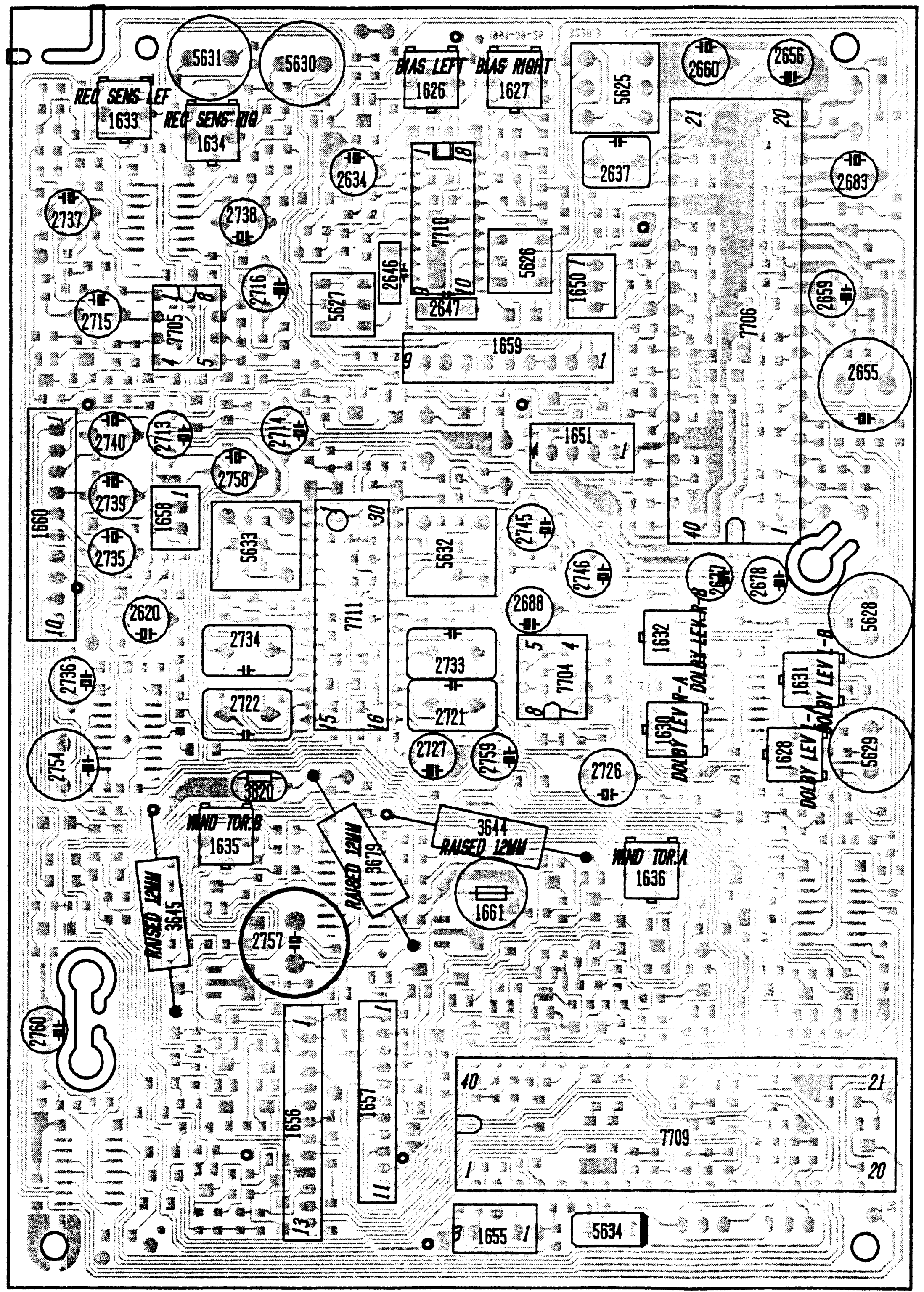


/ COPPERSIDE VIEW / FC930



FC930.00.SERV-A / 91-11-29

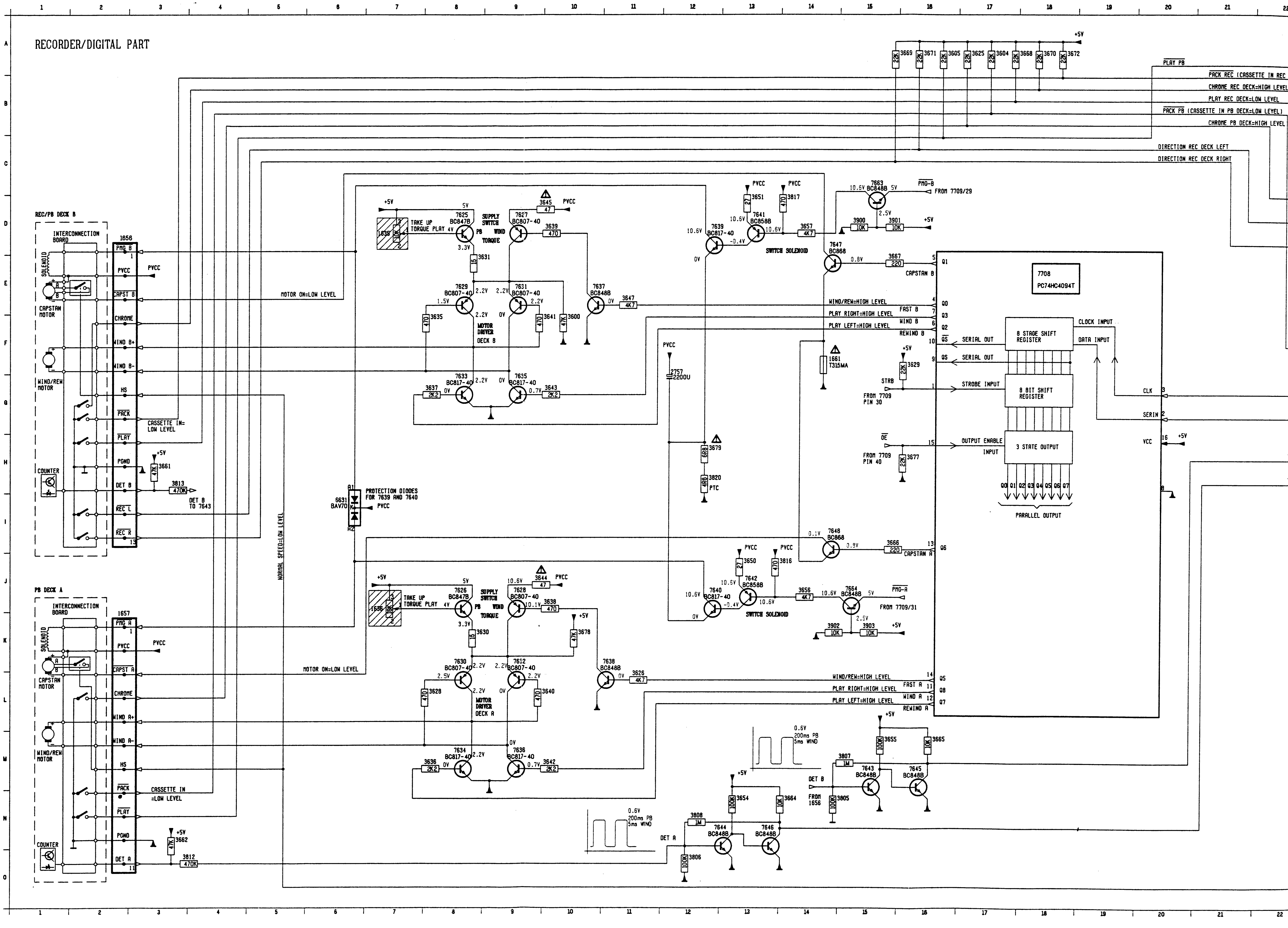
RE-MODULE BOARD / COMPONENTSIDE VIEW / FC930

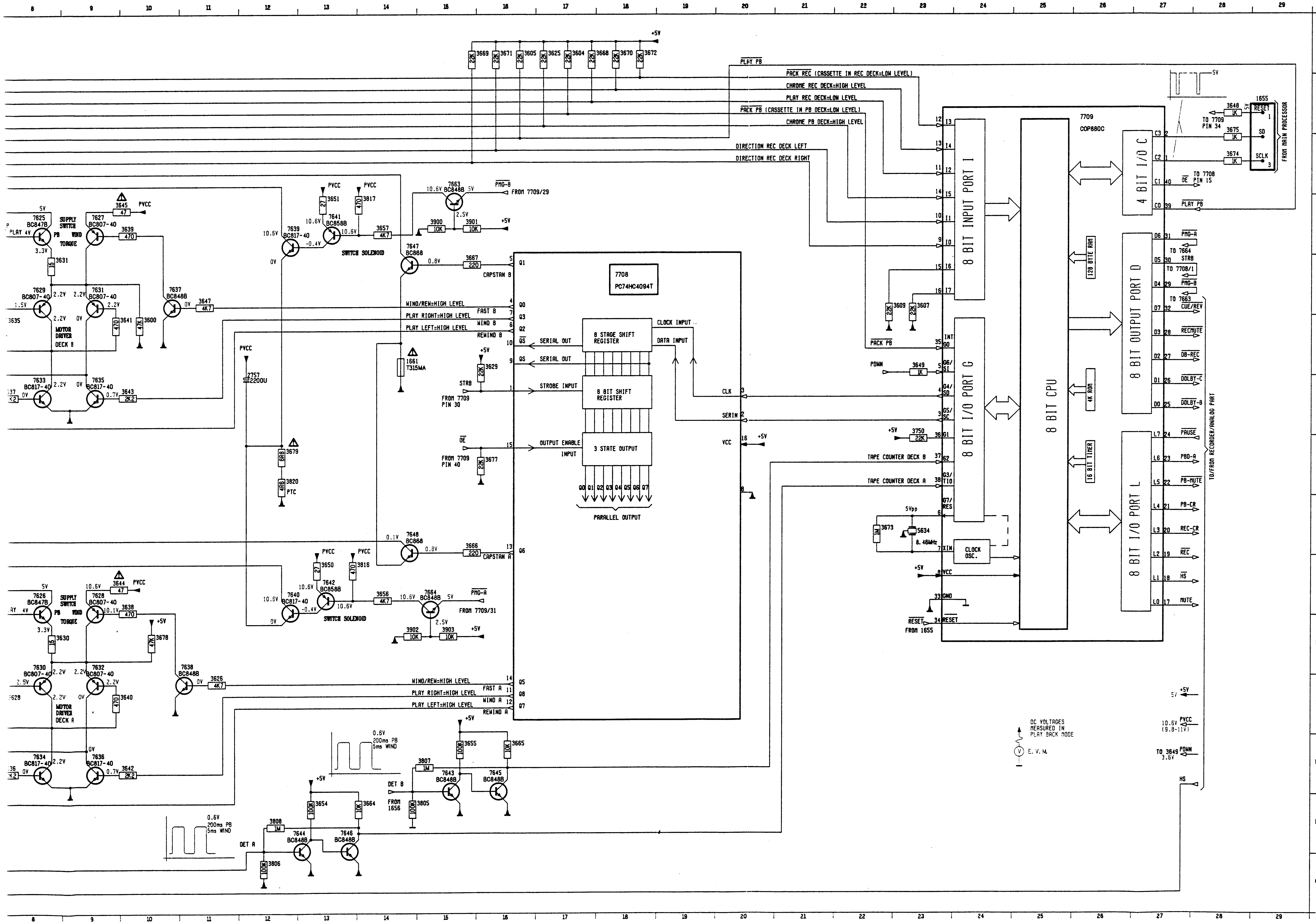

BIAS LEFT
1626
BIAS RIGHT
1627
REC SENS LEF
1633
REC SENS RIG
1634
WIND TOR.B
1635
WIND TOR.A
1636
DOLBY LEV.-A
DOLBY LEV.-B
RAISED 12MM
3644
3645
3679

CAD-REF: PC.FC930.P9.03.FC930.00.SERV-B / 91-11-28

1626	B	3
1627	B	4
1628	F	5
1630	E	5
1631	E	6
1632	E	5
1633	B	1
1634	B	2
1635	F	2
1636	F	5
1650	C	4
1651	D	4
1655	H	4
1656	H	3
1657	H	3
1658	D	2
1659	C	4
1660	D	1
1661	G	4
2620	E	2
2634	B	3
2637	B	4
2646	C	3
2647	C	3
2655	C	6
2656	A	5
2659	C	6
2660	B	5
2677	E	5
2678	E	5
2683	B	6
2688	E	4
2713	D	2
2714	D	2
2715	C	1
2716	C	2
2721	E	3
2722	E	2
2726	F	4
2727	F	3
2733	E	3
2734	E	2
2735	D	1
2736	E	1
2737	B	1
2738	B	2
2739	D	1
2740	D	1
2745	D	4
2746	E	4
2754	F	1
2757	G	2
2758	D	2
2759	F	4
2760	G	1
3644	F	4
3645	G	2
3679	F	3
3820	F	2
5625	B	4
5626	C	4
5627	C	3
5628	E	6
5629	F	6
5630	B	3
5631	B	2
5632	D	3
5633	D	2
5634	H	4
7704	E	4
7705	C	2
7706	C	5
7709	H	5
7710	C	3
7711	E	3

RECORDER/DIGITAL PART


REC/PB DECK B
INTERCONNECTION BOARD
SOLENOID
CAPSTAN MOTOR
WIND/REW MOTOR
COUNTER
1656
PNG B
PVCC
CAPST B
CHROME
WIND B+
WIND B-
HS
PACK
PLAY
PGND
DET B
REC L
REC R
CASSETTE IN= LOW LEVEL
3661
3813
470K
DET B TO 7643
MOTOR ON=LOW LEVEL
NORMAL SPEED=LOW LEVEL
PROTECTION DIODES FOR 7639 AND 7640
6631 BAV70
+5V
TAKE UP TORQUE PLAY
1635
1636
7625 BC847B
7626 BC847B
SUPPLY SWITCH
PB WIND TORQUE
7627 BC807-40
7628 BC807-40
3645 47
3644 47
3639 470
3638 470
3631
3630
7629 BC807-40
7630 BC807-40
7631 BC807-40
7632 BC807-40
MOTOR DRIVER DECK B
MOTOR DRIVER DECK A
3635
3628
3641
3640
3600
3678
7637 BC848B
7638 BC848B
3647 4K7
3626 4K7
7633 BC817-40
7634 BC817-40
7635 BC817-40
7636 BC817-40
3637 2K2
3636 2K2
3643 2K2
3642 2K2
PB DECK A
1657
PNG A
CAPST A
WIND A+
WIND A-
DET A
3662
3812
470K
CASSETTE IN =LOW LEVEL
PVCC
2757 2200U
7639 BC817-40
7640 BC817-40
7641 BC858B
7642 BC858B
3651
3817
3650
3816
3657 4K7
3656 4K7
SWITCH SOLENOID
3679 6R8
3820 4R6 PTC
7663 BC848B
7664 BC848B
PNG-B FROM 7709/29
PNG-A FROM 7709/31
3900 10K
3901 10K
3902 10K
3903 10K
7647 BC868
7648 BC868
3667 220
3666 220
CAPSTAN B
CAPSTAN A
1661 T315MA
WIND/REW=HIGH LEVEL
PLAY RIGHT=HIGH LEVEL
PLAY LEFT=HIGH LEVEL
FAST B
WIND B
REWIND B
FAST A
WIND A
REWIND A
3629
STRB FROM 7709 PIN 30
OE FROM 7709 PIN 40
3677
7708 PC74HC4094T
Q1 Q0 Q3 Q2 QS QS Q6 Q5 Q8 Q7
SERIAL OUT
STROBE INPUT
OUTPUT ENABLE INPUT
8 STAGE SHIFT REGISTER
8 BIT SHIFT REGISTER
3 STATE OUTPUT
CLOCK INPUT
DATA INPUT
PARALLEL OUTPUT
CLK
SERIN
VCC
3669 3671 3605 3625 3604 3668 3670 3672
22K
PLAY PB
PACK REC (CASSETTE IN REC
CHROME REC DECK=HIGH LEVEL
PLAY REC DECK=LOW LEVEL
PACK PB (CASSETTE IN PB DECK=LOW LEVEL)
CHROME PB DECK=HIGH LEVEL
DIRECTION REC DECK LEFT
DIRECTION REC DECK RIGHT
0.6V 200ms PB 5ms WIND
3655 100K
3665 10K
3807 1M
7643 BC848B
7645 BC848B
DET B FROM 1656
3805 100K
3654 100K
3664 10K
3808 1M
7644 BC848B
7646 BC848B
DET A
3806 100K


+5V
3669 3671 3605 3625 3604 3668 3670 3672
22K
PLAY PB
PACK REC (CASSETTE IN REC DECK=LOW LEVEL)
CHROME REC DECK=HIGH LEVEL
PLAY REC DECK=LOW LEVEL
PACK PB (CASSETTE IN PB DECK=LOW LEVEL)
CHROME PB DECK=HIGH LEVEL
DIRECTION REC DECK LEFT
DIRECTION REC DECK RIGHT
7709
COP880C
8 BIT INPUT PORT I
8 BIT CPU
4 BIT I/O C
8 BIT OUTPUT PORT D
8 BIT I/O PORT G
8 BIT I/O PORT L
128 BYTE RAM
4K ROM
16 BIT TIMER
CLOCK OSC.
1655
RESET
SO
SCLK
FROM MAIN PROCESSOR
TO 7709 PIN 34
3648 1K
3675 1K
3674 1K
TO 7708 PIN 15
OE
PMG-A
TO 7664
STRB
TO 7708/1
PMG-B
TO 7663
CUE/REV
RECMUTE
DB-REC
DOLBY-C
DOLBY-B
PAUSE
PBD-A
PB-MUTE
PB-CR
REC-CR
REC
HS
MUTE
TO/FROM RECORDER/ANALOG PART
PACK PB
PDWN
3649 1K
+5V
3750 22K
TAPE COUNTER DECK B
TAPE COUNTER DECK A
5Vpp
3673 1M
5634
8.46MHz
+5V
RESET
FROM 1655
3609 22K
3607 22K
7708
PC74HC4094T
8 STAGE SHIFT REGISTER
8 BIT SHIFT REGISTER
3 STATE OUTPUT
CLOCK INPUT
DATA INPUT
SERIAL OUT
STROBE INPUT
OUTPUT ENABLE INPUT
Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7
PARALLEL OUTPUT
CLK
SERIN
VCC
16 +5V
STRB
FROM 7709 PIN 30
3629 22K
OE
FROM 7709 PIN 40
3677 22K
CAPSTAN B
CAPSTAN A
WIND/REW=HIGH LEVEL
PLAY RIGHT=HIGH LEVEL
PLAY LEFT=HIGH LEVEL
FAST B
WIND B
REWIND B
FAST A
WIND A
REWIND A
1661
T315MA
3667 220
3666 220
7647 BC868
7648 BC868
7663 BC848B
7664 BC848B
PMG-B
FROM 7709/29
PMG-A
FROM 7709/31
3900 10K
3901 10K
3902 10K
3903 10K
PVCC
3651 27
3817 470
3650 27
3816 470
7641 BC858B
7642 BC858B
3657 4K7
3656 4K7
SWITCH SOLENOID
7639 BC817-40
7640 BC817-40
3679 6R8
3820 4R8 PTC
2757 2200U
SUPPLY SWITCH
PB WIND
TORQUE
7625 BC847B
7626 BC847B
7627 BC807-40
7628 BC807-40
3645 47
3644 47
3639 470
3638 470
3631 15
3630 15
7629 BC807-40
7630 BC807-40
7631 BC807-40
7632 BC807-40
MOTOR DRIVER DECK B
MOTOR DRIVER DECK A
3641 470
3600 47K
3640 470
3678 47K
7637 BC848B
7638 BC848B
3647 4K7
3626 4K7
7633 BC817-40
7634 BC817-40
7635 BC817-40
7636 BC817-40
3643 2K2
3642 2K2
0.6V
200ms PB
5ms WIND
DET B
FROM 1656
3807 1M
3805 100K
3655 100K
3665 10K
7643 BC848B
7645 BC848B
DET A
3808 1M
3806 100K
3654 100K
3664 10K
7644 BC848B
7646 BC848B
DC VOLTAGES MEASURED IN PLAY BACK MODE
E. V. M.
10.6V PVCC (9.8-11V)
TO 3649 PDWN 3.6V

1635	D 7
1636	J 7
1655	B29
1656	D 2
1657	K 2
1661	F14
2757	F12
3600	F10
3604	A17
3605	A16
3607	E23
3609	E22
3625	A17
3626	L11
3628	L 8
3629	F16
3630	K 8
3631	E 8
3635	F 8
3636	M 8
3637	G 8
3638	J10
3639	D10
3640	L 9
3641	F 9
3642	M10
3643	G10
3644	J 9
3645	D10
3647	E11
3648	B28
3649	F23
3650	J13
3651	D13
3654	N13
3655	M15
3656	J14
3657	D14
3661	H 3
3662	N 3
3664	N14
3665	M16
3666	I15
3667	E15
3668	A17
3669	A15
3670	A18
3671	A16
3672	A18
3673	I22
3674	C28
3675	B28
3677	H16
3678	J10
3679	H12
3750	G23
3805	N14
3806	O12
3807	M15
3808	N12
3812	O 4
3813	H 3
3816	J13
3817	D14
3820	H12
3900	D15
3901	D15
3902	K14
3903	K15
5634	I23
6631	I 6
7625	D 8
7626	J 8
7627	D 9
7628	J 9
7629	E 8
7630	K 8
7631	E 9
7632	K 9
7633	G 8
7634	M 8
7635	G 9
7636	M 9
7637	E10
7638	K10
7639	D12
7640	J12
7641	D13
7642	J13
7643	M15
7644	N13
7645	M16
7646	N13
7647	D14
7648	I14
7663	C15
7664	J15
7708	E18
7709	B26

Adjustment	Cassette	Recorder in position	Apply signal to	Measure on	Read on	Adjust with	
Overall Freqeuntie Response B Deck	SBC419 Side 2	Rec + Play and Cr-Mode	±24,5mV 315Hz Dolby Ref c2436 (c2435)	1660-5 (1660-6)	mV meter	LF generetor	
			63H 250Hz 2kHz 10kHz 12,5kHz to 1660-4 (1660-3)	Record a number of frequentie with the same input voltage and play them back			
		Play	—	1660-5 (1660-6)	mV meter	—	see fig 2
		If nesessary repaet Bias adjustment See fig C					
Overall Sensitivity	SBC420 Side 2	Rec + Play and Fe-Mode	75mV 315Hz Dolby Ref c2436 (c2435)	Record it for about 30 sec. and rewind about 30 sec.			
		PLAY	—	Dolby Ref c2436 (c2435)	mV meter	—	550mV +1dB

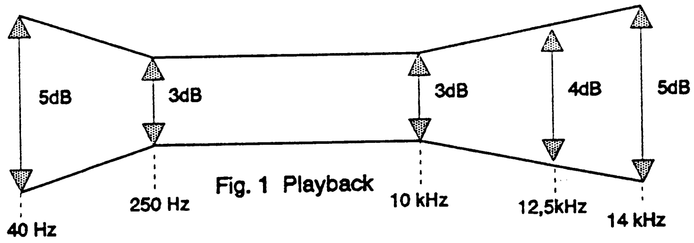

5dB
3dB
3dB
4dB
5dB
40 Hz
250 Hz
10 kHz
12,5kHz
14 kHz

Fig. 1 Playback

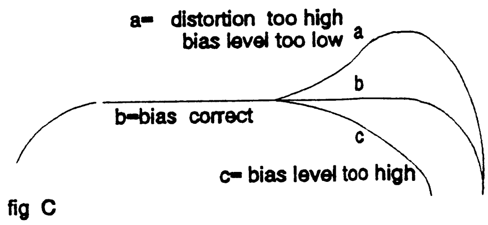

a= distortion too high
bias level too low
a
b
b=bias correct
c
c= bias level too high

fig C

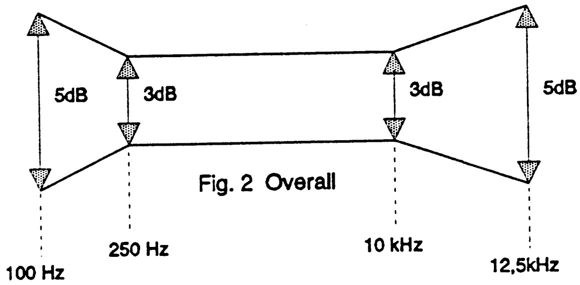
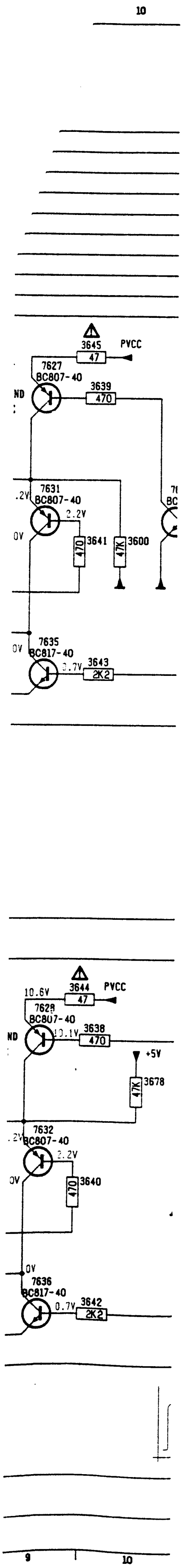

5dB
3dB
3dB
5dB
100 Hz
250 Hz
10 kHz
12,5kHz

Fig. 2 Overall

Adjustment	Cassette	Recorder in position	Apply signal to	Measure on	Read on	Adjust with	Value
Azimuth A Deck B Deck	SBC419 10 kHZ	PLAY	—	1405-L out (1405-R out)	mV-meter	Left screw Norm.Dir.(>) Right screw Rev.Dir.(<)	max.output left=right
Take up torque A Deck B Deck	811CTM	PLAY HS	—	—	811CTM	1636 for N.S. for H.S. 1635 for N.S. for H.S.	45-50 gcm 40-45 gcm 45-50 gcm 40-45 gcm



ELECTRICAL MAESUREMENTS AND ADJUSTMENTS

General conditions

The following general conditions apply to the electrical measurements and adjustments, unless explicitly stated otherwise.

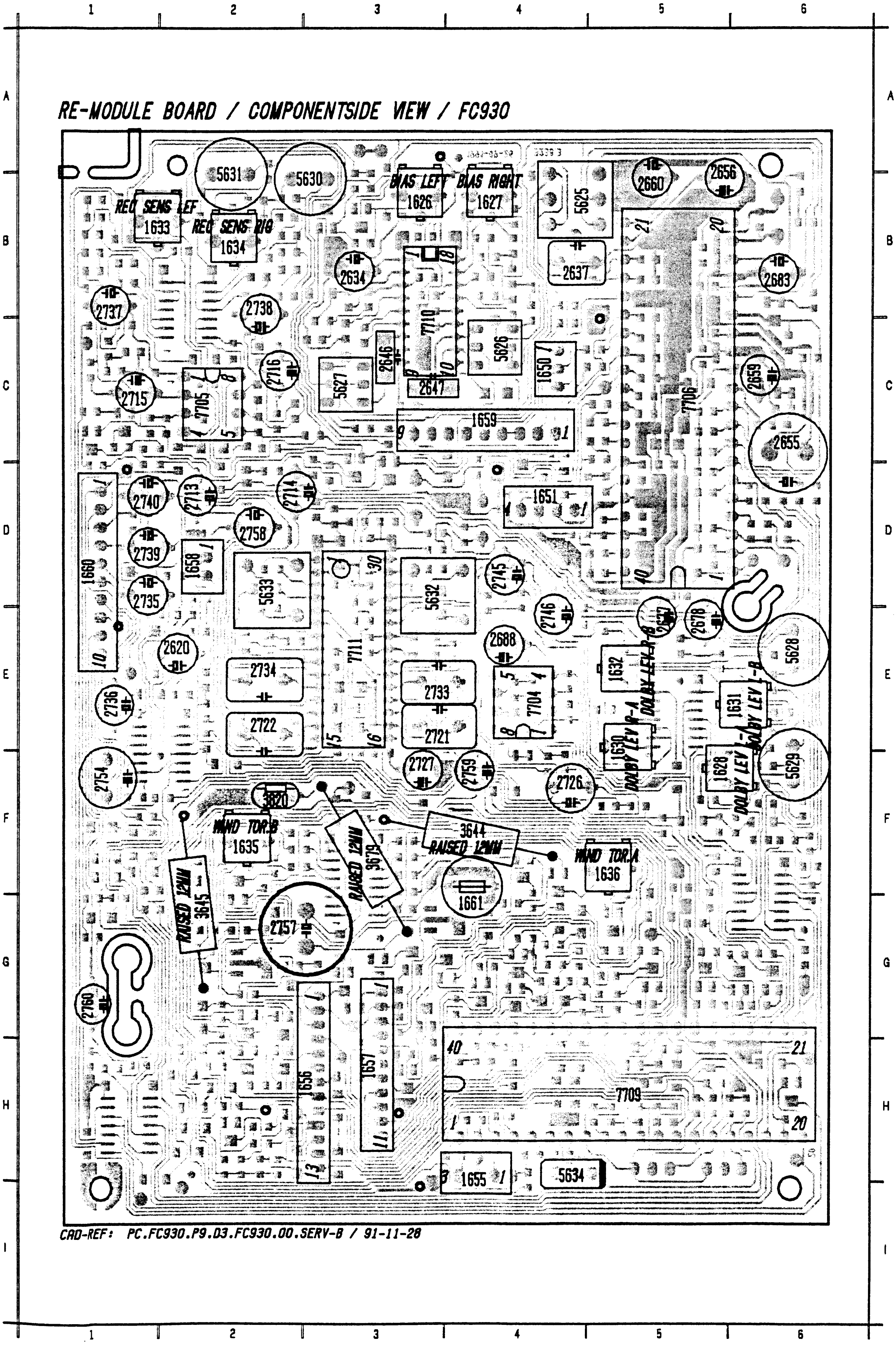
- Mains voltage 220 V ±5% 50 Hz
- Dolby off
- Volume control recording level 3426 max.
- Balance control 3425 on centre click
- The DC voltages have been measured relative to the analog earth.(resistor 3474)
- The measurements and adjustments are related to the left-hand channel.
- The corresponding test points and adjusting elements for the right-hand channel are given in brackets.

Required test equipment and test cassettes

- LF generate:
- AC millivoltmeter (mV-meter)
- Wow and fluttermeter
- Frequency counter
- Multimeter
- Oscilloscop
- Universal test cassette SBC419 Cr. 4822 397 30069
- Universal test cassette SBC420 Fe. 4822 397 30071
- Torque cassette 811CTM 4822 395 30054

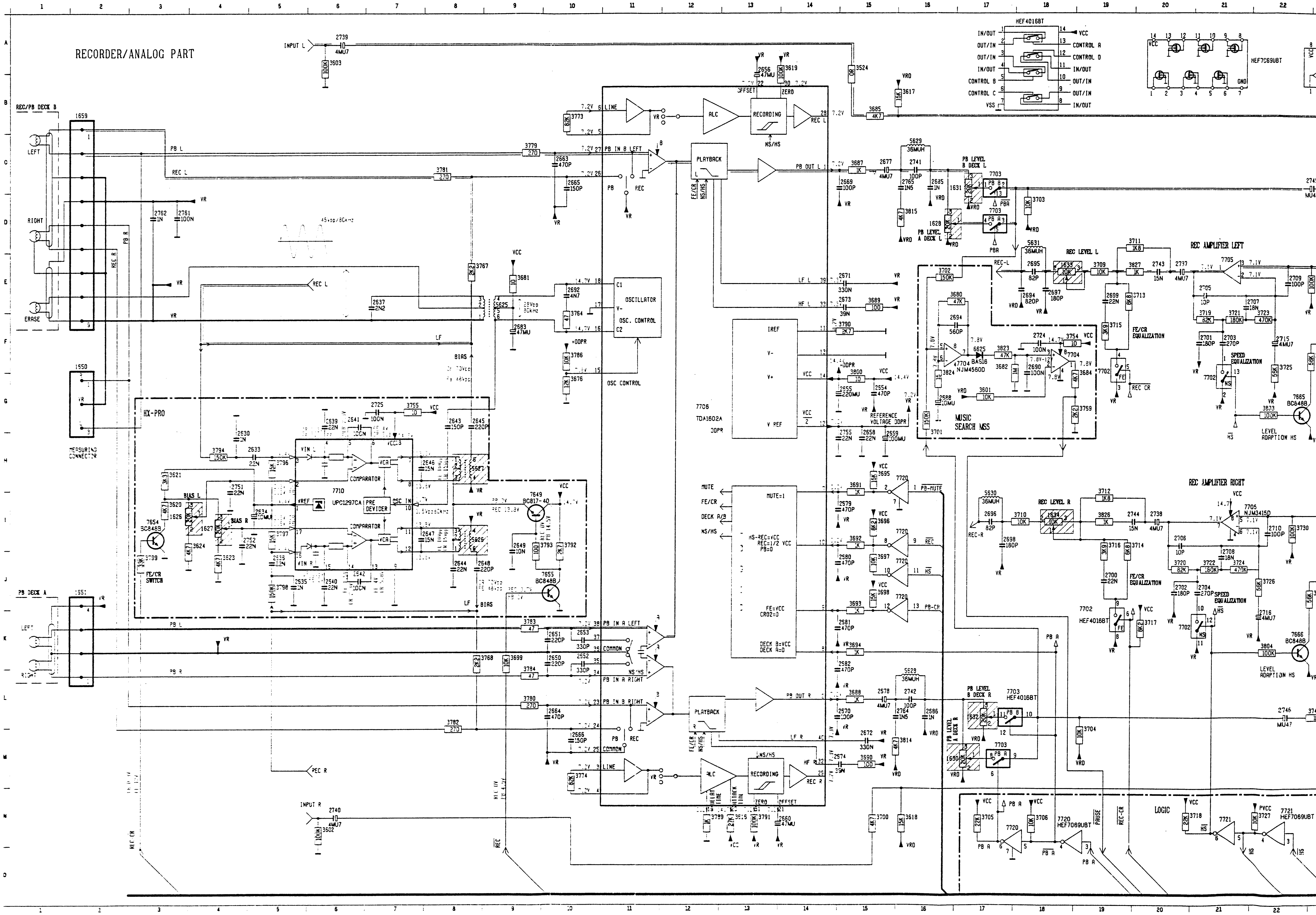
Adjustment	Cassette	Recorder in position	Apply signal to	Measure on	Read on	Adjust with	Value
Playback High Speed A Deck B Deck	SBC419 3150Hz	PLAY High Speed by Service mode	—	1405-L out (1405-R out)	Counder	High Speed · with 3704	6300Hz ±0,3%
Playback Normal Speed A Deck B Deck	SBC419 3150Hz	PLAY	—	1405-L out (1405-R out)	Wow and Flutter meter	Norm. Speed with 3705	±0,3%
Wow and Flutter	SBC419 3150Hz	PLAY	—	1405-L out (1405-R out)	Wow and Flutter meter	—	< 0,2%
Playback sensitivity A Deck B Deck	Dolby 200 N.Wb/m	PLAY	—	Dolby REF c2436 (c2435)	mV-meter	1628 (1630) 1631 (1632)	550mV
Playback Frequentie Response A Deck B Deck	SBC419 40Hz 250Hz till 10kHz 12,5kHz 14kHz	PLAY	—	1405-L out (1405-R out)	mV-meter	—	See fig 1
Recording Sensitivity B Deck	SBC419 Side 2	Rec. + Play and Cr - Mode	Short circuit 1659 8 and 9				
			75mV315Hz 1405-L in 1405-R in	1650-1 (1650-3)	mV meter	1633 (1634)	25 mV
	SBC420 Side 2	Rec. + Play and Fe - Mode				—	20,5mV±.5dB
			Disconnect 1659 8 and 9				
BIAS	SBC419 Side 2	Rec. + Play and Cr - Mode	—	1626 (1627) Max Position			
				1650-1 (1650-3)	mV meter	5627 (5628)	max Voltage
				1650-1 (1650-3)	mV meter	1626 (1627)	270mV
	SBC420 Side 2	Rec + Play and Fe-Mode				—	185mV±.5dB

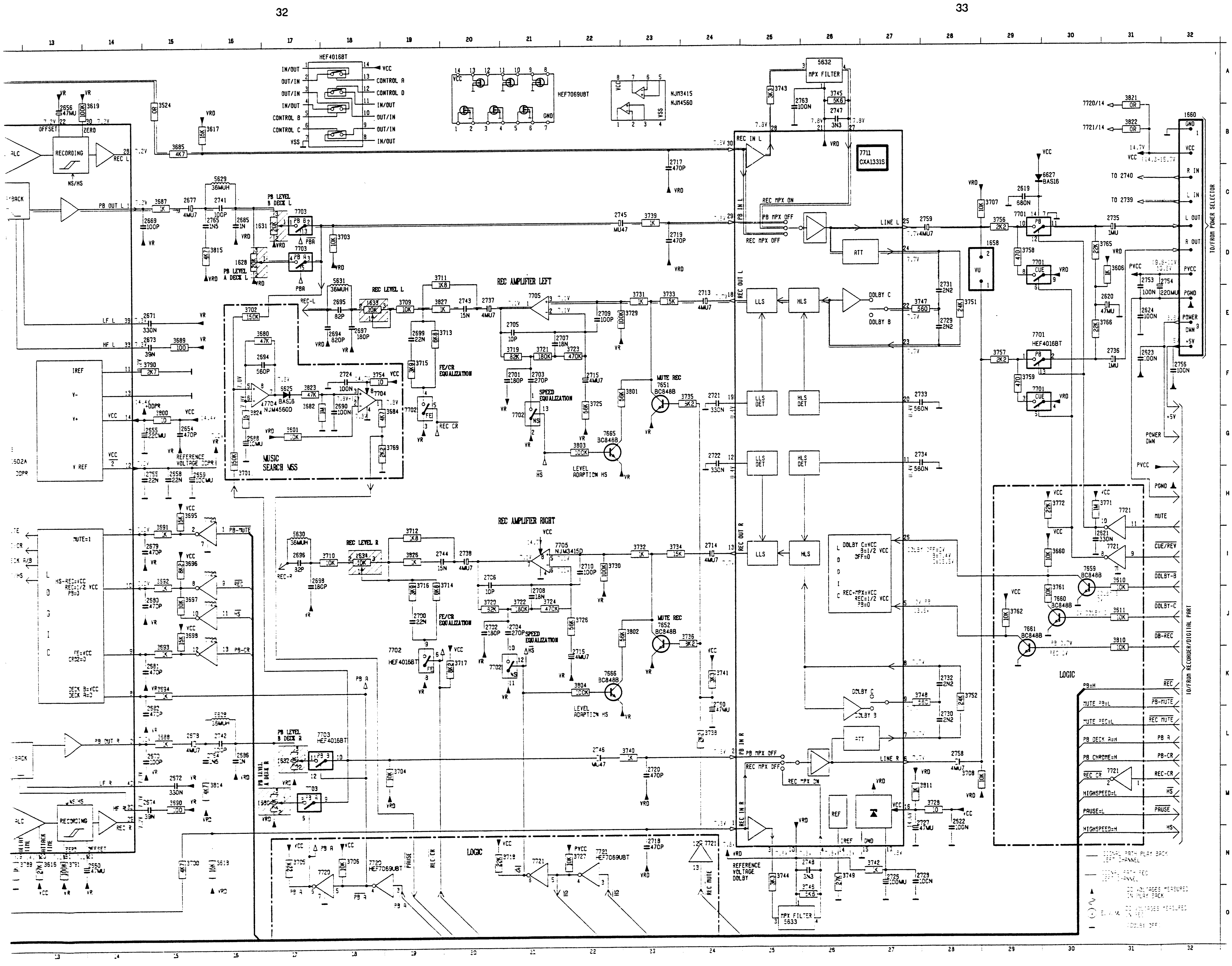
RE-MODULE BOARD / COMPONENTSIDE VIEW / FC930


1
2
3
4
5
6
A
B
C
D
E
F
G
H
I
5631
5630
BIAS LEFT
1626
BIAS RIGHT
1627
5625
2660
2656
REC SENS LEF
1633
REC SENS RIG
1634
2634
7710
2637
2683
2737
2738
2646
5626
5627
2647
1650
7706
21
20
40
2716
2715
7705
1659
2655
2659
2740
2713
2714
1651
2758
2739
2735
1658
1660
5633
7711
5632
2745
2746
2677
2678
5628
2620
2688
2734
2733
7704
1632
DOLBY LEV R-B
DOLBY LEV R-A
1631
DOLBY LEV L-B
2736
2722
2721
1630
1628
DOLBY LEV L-A
5629
2754
2727
2759
2726
3820
WIND TOR.B
1635
3644
RAISED 12MM
3679
WIND TOR.A
1636
1661
3645
2757
2760
1656
1657
7709
1655
5634

CAD-REF: PC.FC930.P9.D3.FC930.00.SERV-B / 91-11-28

1626	B	3
1627	B	4
1628	F	5
1630	E	5
1631	E	6
1632	E	5
1633	B	1
1634	B	2
1635	F	2
1636	F	5
1650	C	4
1651	D	4
1655	H	4
1656	H	3
1657	H	3
1658	D	2
1659	C	4
1660	D	1
1661	G	4
2620	E	2
2634	B	3
2637	B	4
2646	C	3
2647	C	3
2655	C	6
2656	A	5
2659	C	6
2660	B	5
2677	E	5
2678	E	5
2683	B	6
2688	E	4
2713	D	2
2714	D	2
2715	C	1
2716	C	2
2721	E	3
2722	E	2
2726	F	4
2727	F	3
2733	E	3
2734	E	2
2735	D	1
2736	E	1
2737	B	1
2738	B	2
2739	D	1
2740	D	1
2745	D	4
2746	E	4
2754	F	1
2757	G	2
2758	D	2
2759	F	4
2760	G	1
3644	F	4
3645	G	2
3679	F	3
3820	F	2
5625	B	4
5626	C	4
5627	C	3
5628	E	6
5629	F	6
5630	B	3
5631	B	2
5632	D	3
5633	D	2
5634	H	4
7704	E	4
7705	C	2
7706	C	5
7709	H	5
7710	C	3
7711	E	3

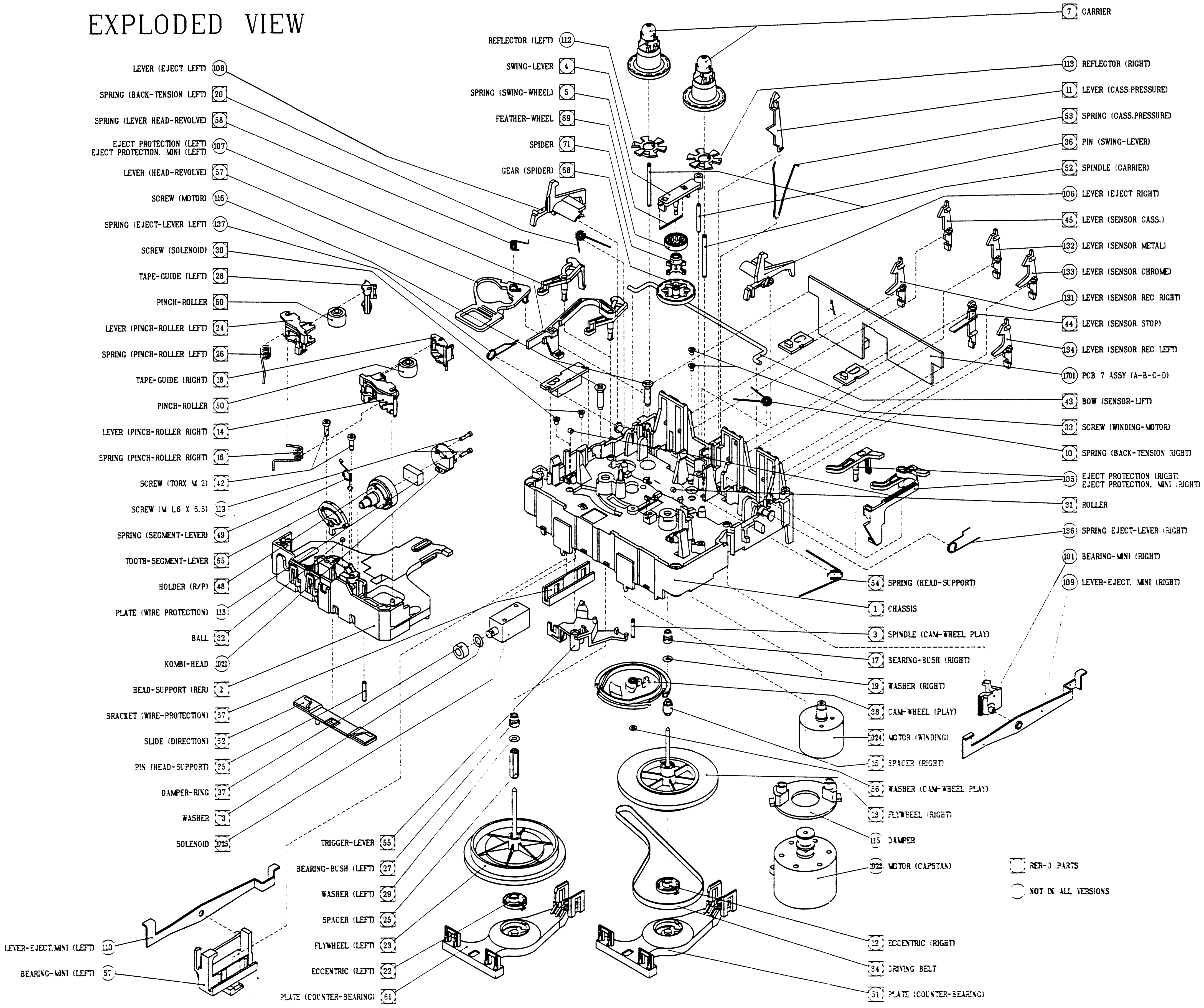

RECORDER/ANALOG PART
REC/PB DECK B
LEFT
RIGHT
ERASE
PB DECK A
MEASURING CONNECTOR
HX-PRO
UPC1297CA
COMPARATOR
PRE DEVIDER
BIAS L
BIAS R
FE/CR SWITCH
INPUT L
INPUT R
REC L
REC R
LINE
ALC
RECORDING
PLAYBACK
OSCILLATOR
OSC. CONTROL
OSC CONTROL
IREF
V REF
7706
TDA1602A
ODPR
MUTE
FE/CR
DECK A/B
NS/HS
MUTE=1
HS=REC=VCC
REC=1/2 VCC
PB=0
FE=VCC
CRO2=0
DECK B=VCC
DECK A=0
PB OUT L
PB OUT R
PB IN B LEFT
PB IN A LEFT
PB IN A RIGHT
PB IN B RIGHT
COMMON
OFFSET
ZERO
REFERENCE VOLTAGE ODPR
HEF4016BT
HEF7069UBT
IN/OUT
OUT/IN
CONTROL A
CONTROL B
CONTROL C
CONTROL D
PB LEVEL B DECK L
PB LEVEL A DECK L
PB LEVEL B DECK R
PB LEVEL A DECK R
REC LEVEL L
REC LEVEL R
REC AMPLIFIER LEFT
REC AMPLIFIER RIGHT
NJM3415D
NJM4560D
MUSIC SEARCH MSS
FE/CR EQUALIZATION
SPEED EQUALIZATION
LEVEL ADAPTION HS
LOGIC
PAUSE
REC-CR
PB-MUTE
PB-CR

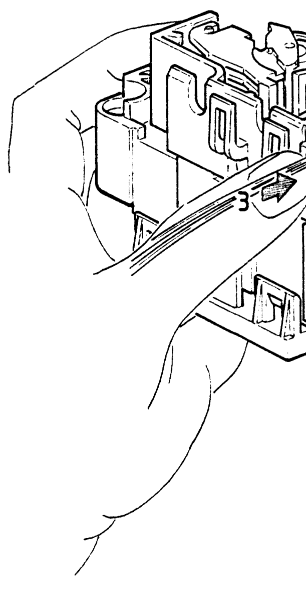

32
33
HEF4016BT
IN/OUT
OUT/IN
CONTROL B
CONTROL C
VSS
VCC
CONTROL A
CONTROL D
HEF7069UBT
NJM3415
NJM4560
RECORDING
NS/HS
OFFSET
ZERO
ALC
PB OUT L
PB LEVEL B DECK L
PB LEVEL A DECK L
REC LEVEL L
REC AMPLIFIER LEFT
FE/CR EQUALIZATION
SPEED EQUALIZATION
MUTE REC
LEVEL ADAPTION HS
MUSIC SEARCH VSS
NJM4560D
BAS16
REC AMPLIFIER RIGHT
REC LEVEL R
PB LEVEL B DECK R
PB LEVEL A DECK R
PB OUT R
LF L
HF L
LF R
HF R
IREF
V-
V+
VCC
V REF
REFERENCE VOLTAGE
MUTE=1
HS-REC=VCC HS=1/2 VCC PB=0
FE=VCC CR02=0
DECK B=VCC DECK A=0
LOGIC
PAUSE
REC CR
MPX FILTER
7711 CXA1331S
REC IN L
PB IN L
REC MPX ON
PB MPX OFF
REC MPX OFF
LINE L
ATT
LLS
HLS
DOLBY C
DOLBY B
LLS DET
HLS DET
REC OUT L
REC OUT R
PB IN R
REC IN R
LINE R
DOLBY C=VCC B=1/2 VCC OFF=0
REC+MPX=VCC REC=1/2 VCC PB=0
REF
GND
REFERENCE VOLTAGE DOLBY
VU
HEF4016BT
CUE
TO 2740
TO 2739
7720/14
7721/14
R IN
L IN
L OUT
R OUT
PVCC
PGND
POWER DWN
+5V
TO/FROM POWER SELECTOR
MUTE
CUE/REV
DOLBY-B
DOLBY-C
DB-REC
REC
PB-MUTE
REC MUTE
PB R
PB-CR
REC-CR
HS
PAUSE
PB=H
MUTE PB=L
MUTE REC=L
PB DECK A=H
PB CHROME=H
REC CR
HIGHSPEED=L
PAUSE=L
HIGHSPEED=H
TO/FROM RECORDER/DIGITAL PART
SIGNAL PATH PLAY BACK LEFT CHANNEL
SIGNAL PATH REC LEFT CHANNEL
DC VOLTAGES MEASURED IN PLAY BACK
DC VOLTAGES MEASURED IN REC
DOLBY OFF

1626	I 4	2752	I 4	3784	L 9
1627	I 4	2753	D31	3786	F10
1628	D16	2754	D31	3789	N12
1630	M17	2755	H14	3790	F15
1631	C17	2756	F32	3791	N13
1632	L17	2758	L28	3792	I10
1633	E18	2759	C28	3793	I 9
1634	I18	2760	K24	3794	H 4
1650	F 2	2761	D 3	3796	H 5
1651	J 2	2762	O 3	3797	I 5
1658	D29	2763	A25	3798	J 5
1659	B 2	2764	L15	3799	J 3
1660	B32	2765	C15	3800	G15
2619	C29	3524	A15	3801	F22
2620	E31	3601	G17	3802	J22
2621	I30	3602	N 6	3803	G22
2622	M28	3603	A 6	3804	K22
2623	F31	3606	D31	3810	J31
2624	E31	3610	I31	3811	M27
2630	H 4	3611	J31	3814	M15
2633	H 5	3616	N13	3815	D16
2634	I 5	3617	B15	3821	A31
2635	J 5	3618	N16	3822	B31
2636	J 5	3619	A13	3823	F17
2637	E 7	3620	I 3	3824	G16
2639	G 6	3621	H 3	3826	I19
2640	J 6	3623	J 4	3827	E20
2641	G 6	3624	I 3	5625	E 9
2642	J 6	3660	I30	5626	I 8
2643	G 8	3676	G10	5627	H 8
2644	J 8	3680	E17	5628	L16
2645	G 8	3681	E 9	5629	C16
2646	H 7	3682	F17	5630	I17
2647	I 7	3684	G18	5631	D18
2648	J 8	3685	B15	5632	A26
2649	I 9	3687	C15	5633	O25
2650	K10	3688	L15	6625	F17
2651	K10	3689	E15	6627	C29
2652	K10	3690	M15	7649	I 9
2653	K10	3691	H15	7651	F23
2654	G15	3692	I15	7652	J23
2655	G14	3693	J15	7654	I 3
2656	A13	3694	K15	7655	J10
2658	H15	3695	H15	7659	I30
2659	H15	3696	I15	7660	J30
2660	N13	3697	J15	7661	J29
2663	C10	3698	J15	7665	G22
2664	L10	3699	K 9	7666	K22
2665	C10	3700	N15	7701	E29
2666	M10	3701	H16	7702	J18
2669	C14	3702	E16	7703	L17
2670	L14	3703	D18	7704	F16
2671	E15	3704	M19	7705	I21
2672	M15	3705	N17	7706	G12
2673	E15	3706	N18	7710	H 6
2674	M15	3707	C28	7711	B26
2677	C15	3708	M28	7720	N18
2678	L15	3709	E19	7721	N22
2679	I14	3710	I18		
2680	J14	3711	D20		
2681	K14	3712	I19		
2682	K14	3713	E19		
2683	F 9	3714	I19		
2685	C16	3715	F19		
2686	L16	3716	I19		
2688	G16	3717	K20		
2690	F18	3718	N20		
2692	E10	3719	F21		
2694	F17	3720	J20		
2694	E18	3721	F21		
2695	E18	3722	J21		
2696	I17	3723	F22		
2697	E18	3724	J21		
2698	I17	3725	F22		
2699	E19	3726	J22		
2700	J19	3727	N22		
2701	F21	3728	M28		
2702	J20	3729	E22		
2703	F21	3730	I22		
2704	J21	3731	E23		
2705	E21	3732	I23		
2706	I20	3733	E23		
2707	E21	3734	I23		
2708	J21	3735	F24		
2709	E22	3736	J24		
2710	I22	3738	L24		
2713	E24	3739	C23		
2714	I24	3740	L23		
2715	F22	3741	K24		
2716	K22	3742	N27		
2717	B23	3743	A25		
2718	N23	3744	N25		
2719	D23	3745	A26		
2720	M23	3746	O26		
2721	F24	3747	E28		
2722	G24	3748	K28		
2724	F18	3749	N26		
2725	G 7	3751	E28		
2726	N27	3752	K28		
2727	M27	3754	F18		
2728	N27	3755	G 7		
2729	E28	3756	C29		
2730	L28	3757	F29		
2731	D28	3758	D29		
2732	K28	3759	F29		
2733	F28	3761	J30		
2734	G28	3762	J29		
2735	C31	3764	F10		
2736	F31	3765	D30		
2737	E20	3766	E30		
2738	I20	3767	E 8		
2739	A 6	3768	K 8		
2740	N 6	3769	G18		
2741	C16	3771	H30		
2742	L16	3772	H30		
2743	E20	3773	B10		
2744	I20	3774	M10		
2745	C23	3779	C 9		
2746	L22	3780	L 9		
2747	B26	3781	C 8		
2748	N26	3782	L 8		
2751	H 4	3783	K 9		

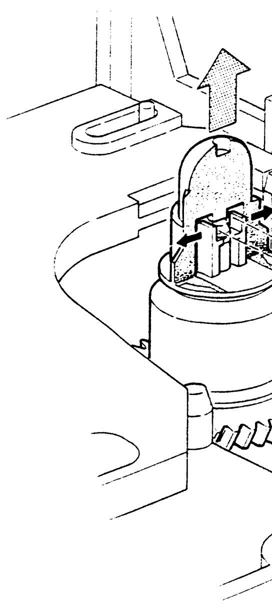
PCS 57 557

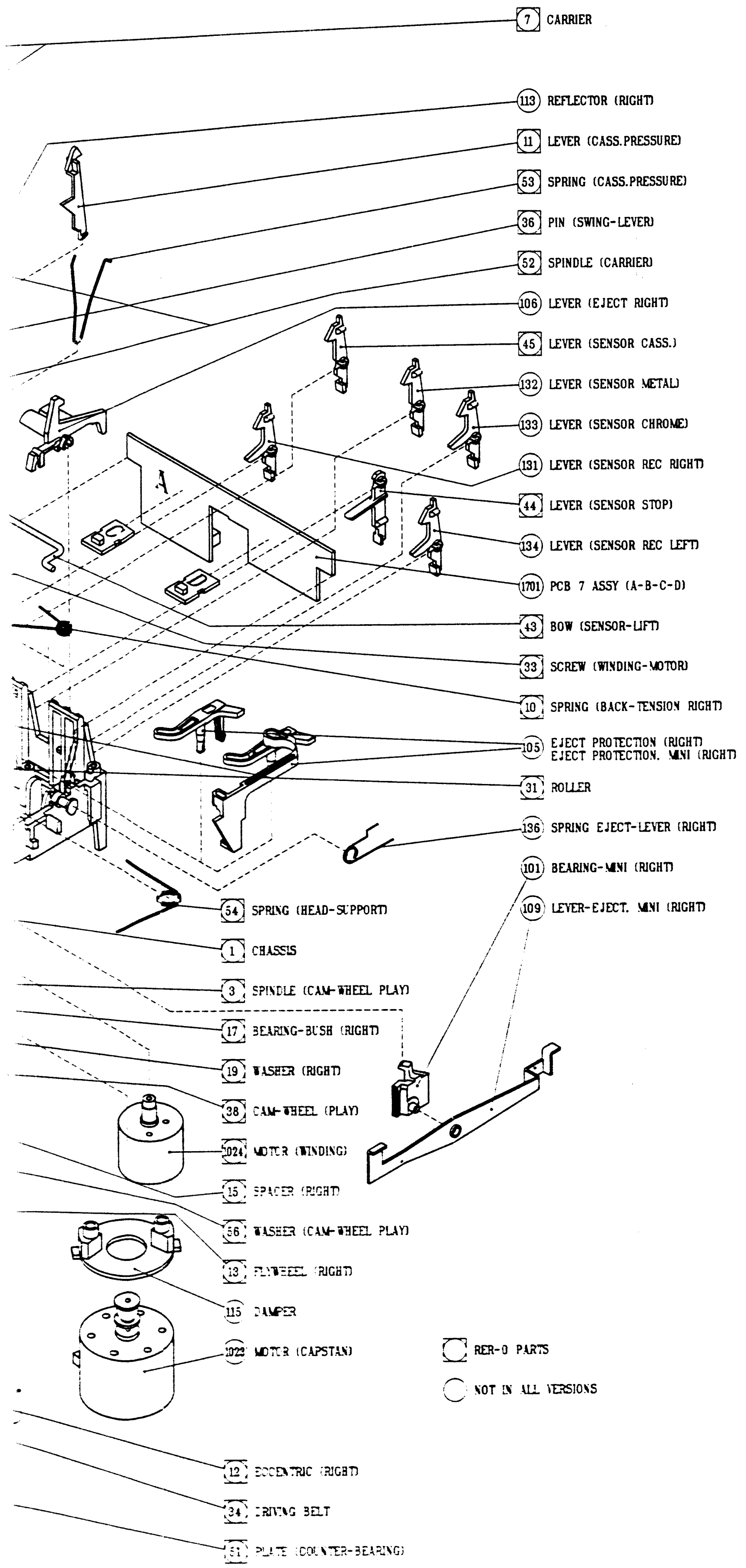
EXPLODED VIEW


LEVER (EJECT LEFT) 108
SPRING (BACK-TENSION LEFT) 20
SPRING (LEVER HEAD-REVOLVE) 58
EJECT PROTECTION (LEFT)
EJECT PROTECTION. MINI (LEFT) 107
LEVER (HEAD-REVOLVE) 57
SCREW (MOTOR) 116
SPRING (EJECT-LEVER LEFT) 137
SCREW (SOLENOID) 30
TAPE-GUIDE (LEFT) 28
PINCH-ROLLER 60
LEVER (PINCH-ROLLER LEFT) 24
SPRING (PINCH-ROLLER LEFT) 26
TAPE-GUIDE (RIGHT) 18
PINCH-ROLLER 50
LEVER (PINCH-ROLLER RIGHT) 14
SPRING (PINCH-ROLLER RIGHT) 16
SCREW (TORX M 2) 42
SCREW (M 1.6 X 6.5) 119
SPRING (SEGMENT-LEVER) 49
TOOTH-SEGMENT-LEVER 65
HOLDER (R/P) 48
PLATE (WIRE PROTECTION) 118
BALL 32
KOMBI-HEAD 1021
HEAD-SUPPORT (RER) 2
BRACKET (WIRE-PROTECTION) 67
SLIDE (DIRECTION) 62
PIN (HEAD-SUPPORT) 35
DAMPER-RING 37
WASHER 73
SOLENOID 1025
LEVER-EJECT.MINI (LEFT) 110
BEARING-MINI (LEFT) 67
TRIGGER-LEVER 55
BEARING-BUSH (LEFT) 27
WASHER (LEFT) 29
SPACER (LEFT) 25
FLYWHEEL (LEFT) 23
ECCENTRIC (LEFT) 22
PLATE (COUNTER-BEARING) 61
REFLECTOR (LEFT) 112
SWING-LEVER 4
SPRING (SWING-WHEEL) 5
FEATHER-WHEEL 69
SPIDER 71
GEAR (SPIDER) 68
7 CARRIER
113 REFLECTOR (RIGHT)
11 LEVER (CASS.PRESSURE)
53 SPRING (CASS.PRESSURE)
36 PIN (SWING-LEVER)
52 SPINDLE (CARRIER)
106 LEVER (EJECT RIGHT)
45 LEVER (SENSOR CASS.)
132 LEVER (SENSOR METAL)
133 LEVER (SENSOR CHROME)
131 LEVER (SENSOR REC RIGHT)
44 LEVER (SENSOR STOP)
134 LEVER (SENSOR REC LEFT)
1701 PCB 7 ASSY (A-B-C-D)
43 BOW (SENSOR-LIFT)
33 SCREW (WINDING-MOTOR)
10 SPRING (BACK-TENSION RIGHT)
105 EJECT PROTECTION (RIGHT)
EJECT PROTECTION. MINI (RIGHT)
31 ROLLER
136 SPRING EJECT-LEVER (RIGHT)
101 BEARING-MINI (RIGHT)
109 LEVER-EJECT. MINI (RIGHT)
54 SPRING (HEAD-SUPPORT)
1 CHASSIS
3 SPINDLE (CAM-WHEEL PLAY)
17 BEARING-BUSH (RIGHT)
19 WASHER (RIGHT)
38 CAM-WHEEL (PLAY)
1024 MOTOR (WINDING)
15 SPACER (RIGHT)
56 WASHER (CAM-WHEEL PLAY)
13 FLYWHEEL (RIGHT)
115 DAMPER
1022 MOTOR (CAPSTAN)
12 ECCENTRIC (RIGHT)
34 DRIVING BELT
51 PLATE (COUNTER-BEARING)
RER-0 PARTS
NOT IN ALL VERSIONS

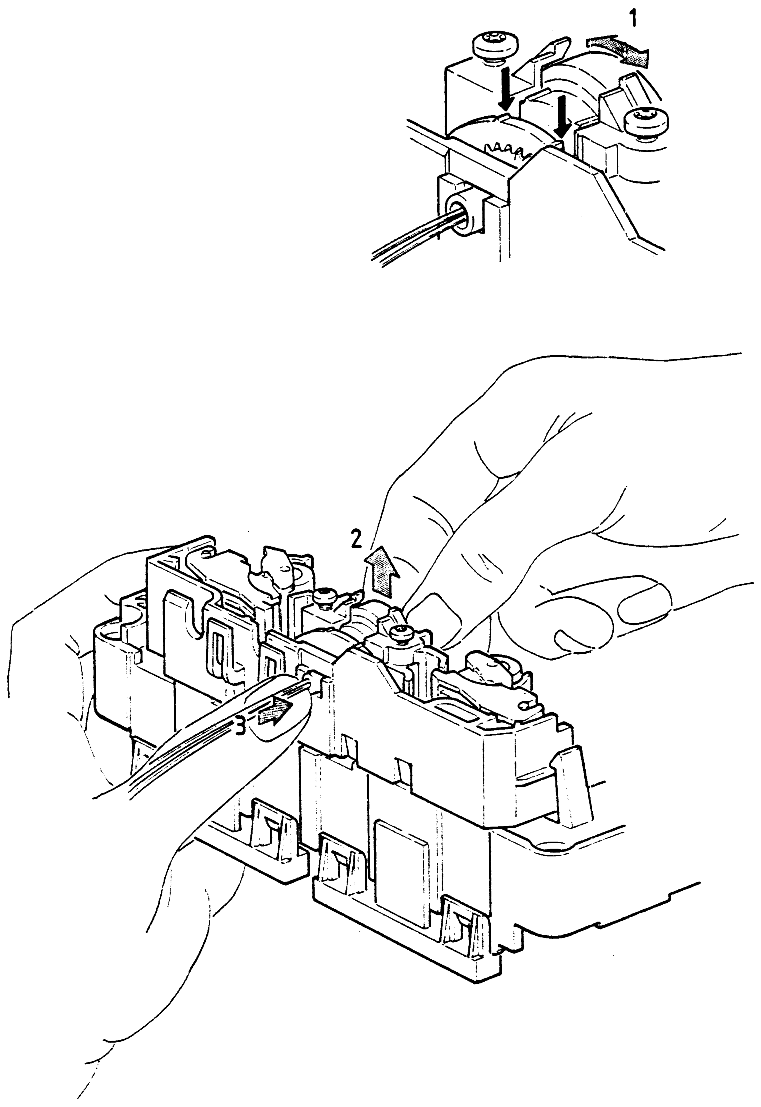


Demounting c

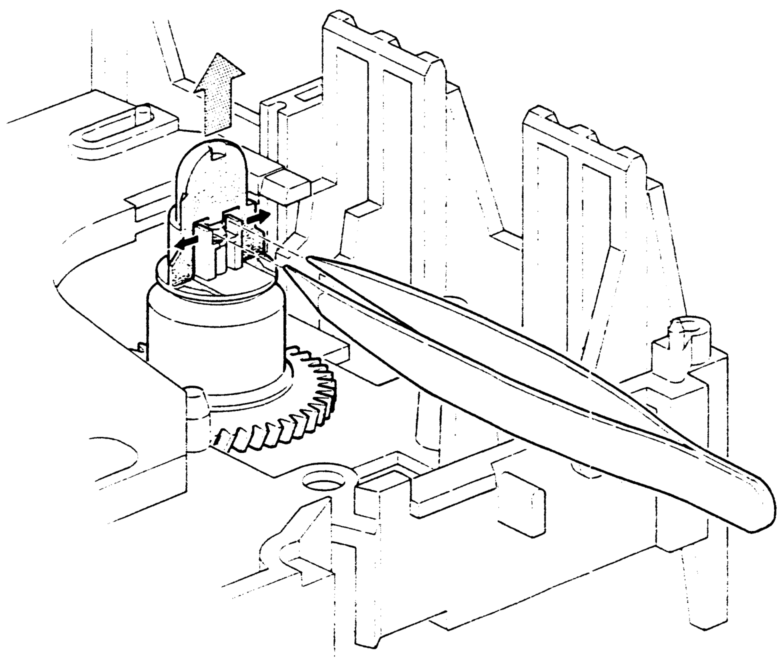



7 CARRIER
113 REFLECTOR (RIGHT)
11 LEVER (CASS.PRESSURE)
53 SPRING (CASS.PRESSURE)
36 PIN (SWING-LEVER)
52 SPINDLE (CARRIER)
106 LEVER (EJECT RIGHT)
45 LEVER (SENSOR CASS.)
132 LEVER (SENSOR METAL)
133 LEVER (SENSOR CHROME)
131 LEVER (SENSOR REC RIGHT)
44 LEVER (SENSOR STOP)
134 LEVER (SENSOR REC LEFT)
1701 PCB 7 ASSY (A-B-C-D)
43 BOW (SENSOR-LIFT)
33 SCREW (WINDING-MOTOR)
10 SPRING (BACK-TENSION RIGHT)
105 EJECT PROTECTION (RIGHT)
EJECT PROTECTION. MINI (RIGHT)
31 ROLLER
136 SPRING EJECT-LEVER (RIGHT)
101 BEARING-MINI (RIGHT)
109 LEVER-EJECT. MINI (RIGHT)
54 SPRING (HEAD-SUPPORT)
1 CHASSIS
3 SPINDLE (CAM-WHEEL PLAY)
17 BEARING-BUSH (RIGHT)
19 WASHER (RIGHT)
38 CAM-WHEEL (PLAY)
1024 MOTOR (WINDING)
15 SPACER (RIGHT)
56 WASHER (CAM-WHEEL PLAY)
13 FLYWHEEL (RIGHT)
115 DAMPER
1023 MOTOR (CAPSTAN)
RER-0 PARTS
NOT IN ALL VERSIONS
12 ECCENTRIC (RIGHT)
34 DRIVING BELT
51 PLATE (COUNTER-BEARING)
A

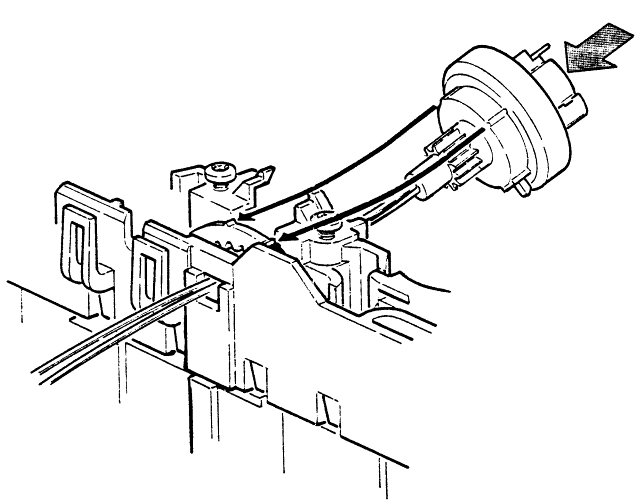
Demounting of rotation head



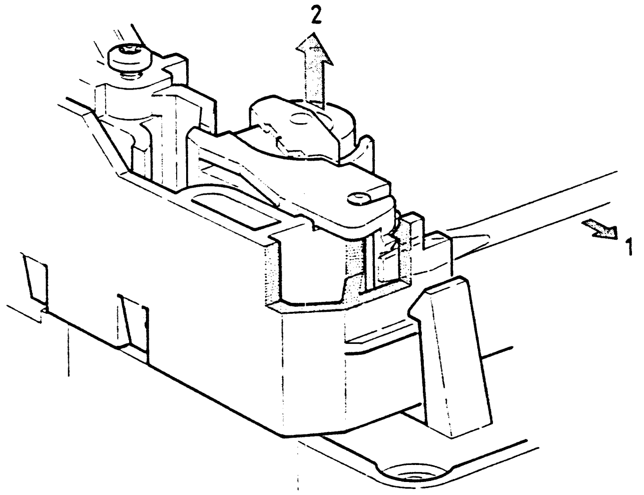
Demounting of carrier ⑦



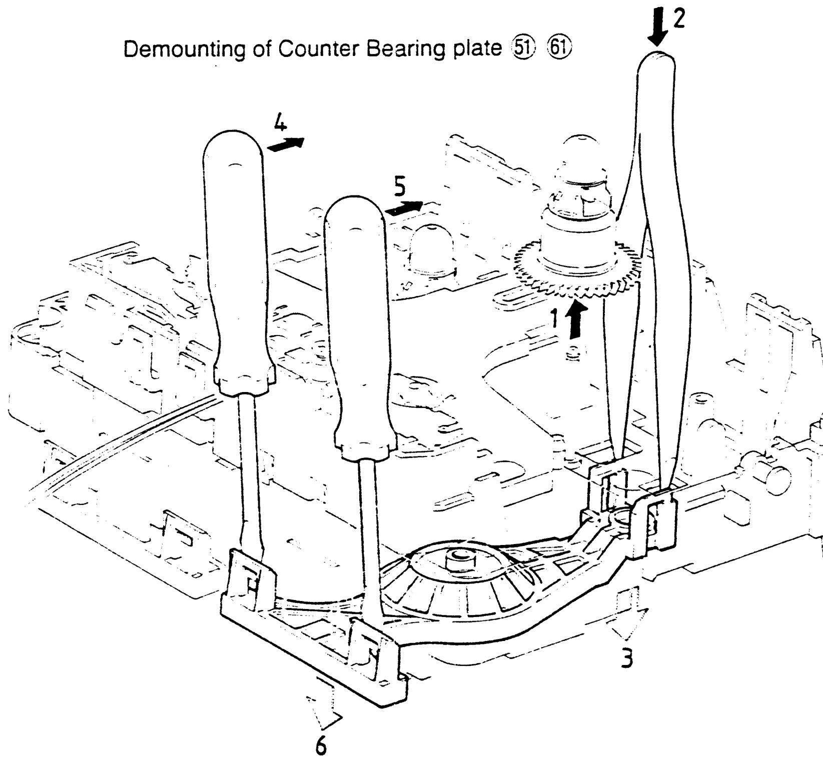
Mounting of rotation head

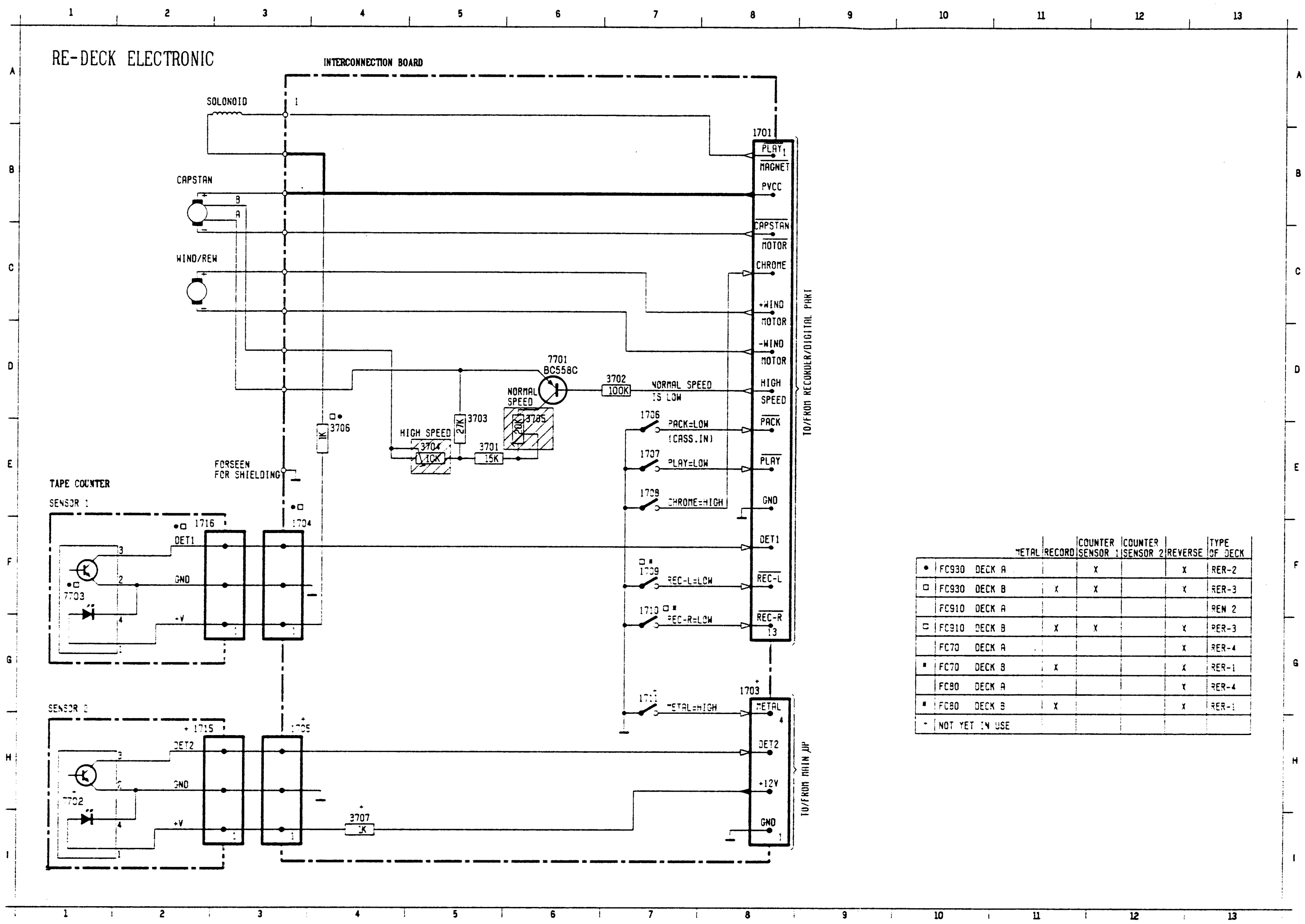


Demounting of pinch roller ⑭ ㉔



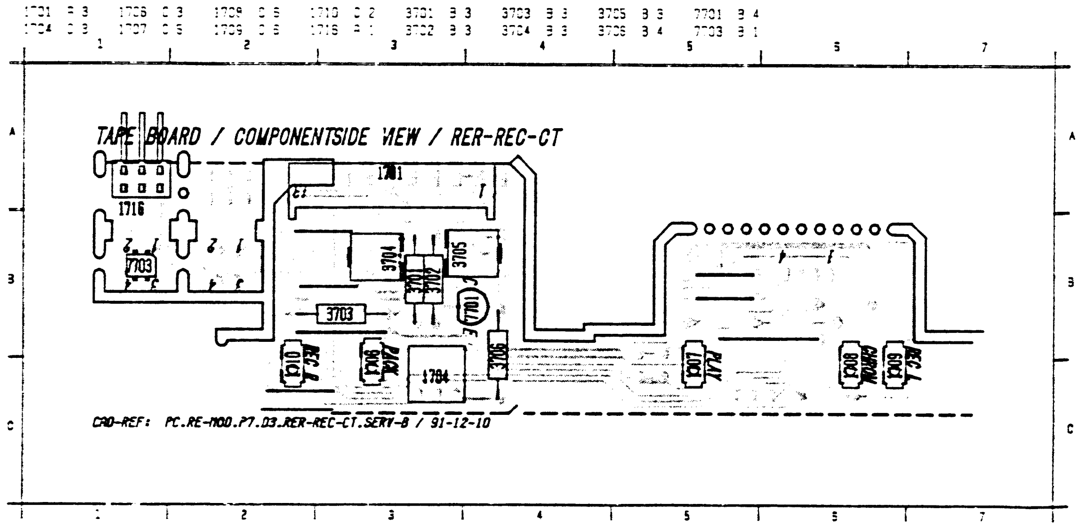
Demounting of Counter Bearing plate (51) (61)




RE-DECK ELECTRONIC
INTERCONNECTION BOARD
SOLONOID
CAPSTAN
WIND/REW
7701
BC558C
NORMAL SPEED
3702
100K
NORMAL SPEED IS LOW
HIGH SPEED
3704
10K
3703
27K
3701
15K
3705
20K
3706
1K
FORSEEN FOR SHIELDING
1706
PACK=LOW (CASS.IN)
1707
PLAY=LOW
1708
CHROME=HIGH
1709
REC-L=LOW
1710
REC-R=LOW
1711
METAL=HIGH
1701
PLAY
MAGNET
PVCC
CAPSTAN
MOTOR
CHROME
+WIND
MOTOR
-WIND
MOTOR
HIGH
SPEED
PACK
PLAY
GND
DET1
REC-L
REC-R
TO/FROM RECORDER/DIGITAL PART
1703
METAL
DET2
+12V
GND
TO/FROM MAIN µP
TAPE COUNTER
SENSOR 1
SENSOR 2
1716
1704
1715
1705
DET1
DET2
GND
+V
7703
7702
3707
1K

		METAL	RECORD	COUNTER SENSOR 1	COUNTER SENSOR 2	REVERSE	TYPE OF DECK
●	FC930 DECK A			X		X	RER-2
□	FC930 DECK B		X	X		X	RER-3
	FC910 DECK A						REN 2
□	FC910 DECK B		X	X		X	RER-3
	FC70 DECK A					X	RER-4
▪	FC70 DECK B		X			X	RER-1
	FC80 DECK A					X	RER-4
▪	FC80 DECK B		X			X	RER-1
-	NOT YET IN USE						

1701	B	8
1703	G	8
1704	F	3
1705	H	3
1706	D	7
1707	E	7
1708	E	7
1709	F	7
1710	F	7
1711	G	7
1715	H	2
1716	F	2
3701	E	5
3702	D	7
3703	D	5
3704	E	5
3705	D	6
3706	E	4
3707	I	4
7701	D	6
7702	H	1
7703	F	1


1701 A 3
1704 C 3
1706 C 3
1707 C 5
1708 C 5
1709 C 6
1710 C 2
1716 A 1
3701 B 3
3702 B 3
3703 B 3
3704 B 3
3705 B 3
3706 B 4
7701 B 4
7703 B 1
TAPE BOARD / COMPONENTSIDE VIEW / RER-REC-CT
1716
7703
1701
3704
3705
3703
7701
1704
3706
CAD-REF: PC.RE-MOD.P7.D3.RER-REC-CT.SERV-B / 91-12-10

MECHANICAL PARTS CABINET

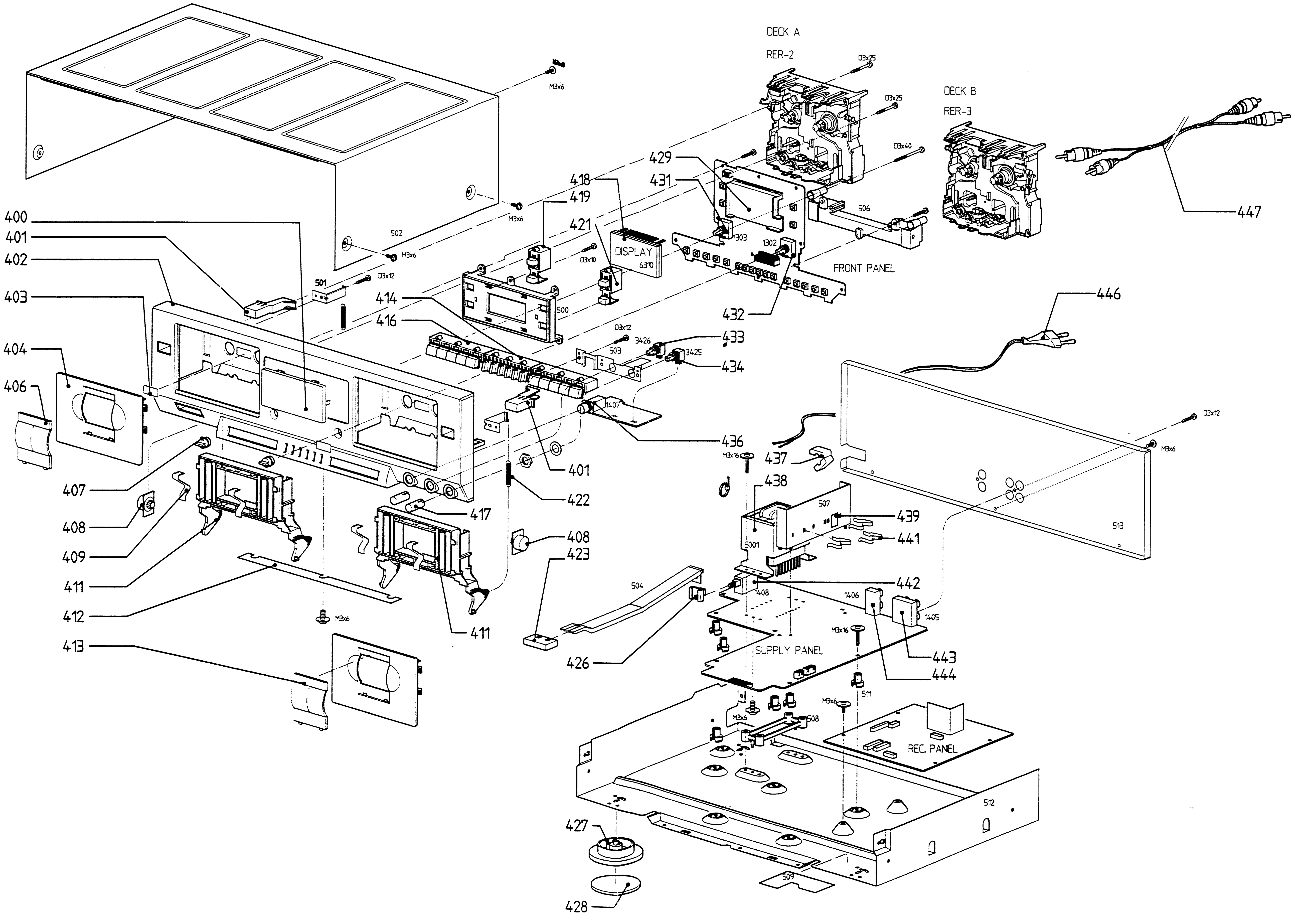
400	4822 459 40688	FTD WINDOW
401	4822 410 61758	EJECT BUTTON
402	4822 454 12805	FRONT ASSY
403	4822 380 30307	TAPE MIRROR
404	4822 443 63568	DOOR FRONT
406	4822 459 40689	CASS WINDOW A
407	4822 413 31686	KNOB
408	4822 529 10257	DAMPER
409	4822 492 71047	SPRING CASS
411	4822 443 63566	CASS DOOR
412	4822 443 63567	STRIP
413	4822 459 40691	CASS WINDOW B
414	4822 410 61757	BUTTONS
416	4822 410 61763	BUTTONS
417	4822 410 61705	LEVEL - BALANCE KNOB
418	4822 130 91081	DISPLAY
419	4822 410 61761	BUTTON
421	4822 410 61762	BUTTON
422	4822 492 71048	CASS DOOR SPRING
423	4822 410 61759	POWER
426	4822 403 70572	COUPLING PIECE
427	4822 462 41888	FOOT
428	4822 462 41887	VILT
429	4822 256 91871	FTD HOLDER
431	4822 273 10241	ROTARY SWITCH
432	4822 273 10239	ROTARY SWITCH
433	4822 101 30772	5k LOG
434	4822 101 21292	5k LIN
436	4822 267 31453	PHONE SOCKET
437	4822 532 60948	BUSH
439	4822 325 20133	INSULATING PLATE
441	4822 492 63051	SPRING CLIP
442	4822 276 13231	POWER SWITCH
443	4822 267 41035	PIN JACK 4P
444	4822 265 20542	PIN JACK 2P
446	4822 321 10789	MAINS CORD
447	4822 321 22832	SBC1072

MECHANICAL PARTS DECKS

115	4822 529 10254	DAMPER
116	4822 502 11866	SCREW
1021	4822 249 10434	REC/PB HEAD
1021	4822 249 30181	PLAY BACK HEAD
1023	4822 361 21506	MOTOR

ELECTRICAL PARTSLIST DECKS

1706	4822 276 12889	SWITCH
1707	4822 276 12889	SWITCH
1708	4822 276 12889	SWITCH
1709	4822 276 12889	SWITCH
1710	4822 276 12889	SWITCH
3701	4822 116 52244	15k 5% 0,5W
3702	4822 116 52234	100k 5% 0,5W
3703	4822 116 52264	27k 5% 0,5W
3704	4822 100 20166	10k 30%LIN 0,1W
3705	4822 100 20589	20K 30%LIN 0,1W
3706	4822 050 21002	1k 1% 0,6W
3706	4822 050 21002	1k 1% 0,6W
7701	5322 130 60068	BC558C
7703	4822 209 31115	NJL5165kA
7703	4822 209 31115	NJL5165kA


DECK A
RER-2
03x25
M3x6
DECK B
RER-3
03x25
03x40
M3x6
M3x6
M3x6
03x12
DISPLAY
FRONT PANEL
03x10
03x12
03x12
M3x6
M3x16
S001
M3x6
M3x16
SUPPLY PANEL
M3x6
M3x6
REC. PANEL

MISCELLANEOUS

1302	4822 273 10239	ROTARY SWITCH
1303	4822 273 10241	ROTARY SWITCH
1304	4822 276 13213	TACT SWICH
1305	4822 276 13213	TACT SWICH
1306	4822 276 13213	TACT SWICH
1307	4822 276 13213	TACT SWICH
1308	4822 276 13213	TACT SWICH
1309	4822 276 13114	TACT SWICH
1310	4822 276 13114	TACT SWICH
1311	4822 276 13114	TACT SWICH
1312	4822 276 13114	TACT SWICH
1313	4822 276 13213	TACT SWICH
1314	4822 276 13213	TACT SWICH
1315	4822 276 13213	TACT SWICH
1316	4822 276 13213	TACT SWICH
1317	4822 276 13213	TACT SWICH
1318	4822 276 13213	TACT SWICH
1319	4822 276 13213	TACT SWICH
1320	4822 276 13114	TACT SWICH
1321	4822 276 13114	TACT SWICH
1322	4822 276 13114	TACT SWICH
1323	4822 276 13114	TACT SWICH
1405	4822 267 41035	PIN JACK 4P
1406	4822 265 20542	PIN JACK 2P
1407	4822 267 31453	PHONE SOCKET
1408	4822 276 13231	POWER SWITCH
1450	4822 071 51002	FUSE 1A
1451	4822 071 56301	FUSE 630MA
1452	4822 071 52501	FUSE 250MA
	4822 736 21338	I.F.U FC930

CAPACITORS

2300	5322 121 42386	100nF 5% 63V
2301	4822 121 70087	47nF 250V
2302	5322 121 42498	680nF 5% 63V
2303	5322 121 42498	680nF 5% 63V
2304	4822 124 40178	100μF 20% 10V
2305	4822 124 40433	47μF 20% 25V
2306	4822 121 42408	220nF 5% 63V
2307	4822 121 42472	10nF 10% 50V
2308	4822 121 41856	22nF 5% 250V
2309	4822 126 10777	100pF 50V
2310	4822 126 10777	100pF 50V
2400	5322 121 42386	100nF 5% 63V
2401	5322 121 42386	100nF 5% 63V
2402	5322 121 42386	100nF 5% 63V
2403	5322 121 42386	100nF 5% 63V
2404	4822 124 40244	2,2μF 20% 63V
2405	4822 124 41993	2200μF 20% 35V
2406	5322 121 42386	100nF 5% 63V
2407	5322 121 42386	100nF 5% 63V
2408	5322 121 42386	100nF 5% 63V
2409	4822 124 41995	6800μF 25V
2411	4822 124 80049	220mF 35V
2412	4822 124 22794	47μF 20% 10V
2413	4822 124 40242	1μF 20% 63V
2414	4822 124 40242	1μF 20% 63V
2415	4822 126 10777	100pF 50V
2416	4822 126 10777	100pF 50V
2417	4822 126 10777	100pF 50V
2418	4822 126 10777	100pF 50V
2419	4822 124 40242	1μF 20% 63V
2420	4822 124 40242	1μF 20% 63V
2421	4822 124 40433	47μF 20% 25V
2422	5322 121 42386	100nF 5% 63V
2423	5322 121 42386	100nF 5% 63V
2424	4822 126 10777	100pF 50V
2425	4822 126 10777	100pF 50V
2426	4822 126 10777	100pF 50V
2427	4822 126 10777	100pF 50V
2430	4822 124 40433	47μF 20% 25V
2431	4822 124 40433	47μF 20% 25V
2432	5322 121 42386	100nF 5% 63V
2433	4822 124 40433	47μF 20% 25V
2434	4822 124 41525	100μF 20% 25V
2435	4822 124 40246	4,7μF 20% 63V
2436	4822 124 40246	4,7μF 20% 63V
2437	4822 124 40435	10μF 20% 50V
2438	4822 124 40435	10μF 20% 50V
2439	5322 121 42386	100nF 5% 63V
2440	4822 124 40178	100μF 20% 10V
2441	5322 121 42465	68nF 5% 63V
2450	4822 124 41678	22μF 20% 25V
2451	4822 126 11167	22nF 20% 50V
2452	4822 126 11167	22nF 20% 50V
2453	4822 126 10781	470pF 50V
2454	4822 126 10781	470pF 50V
2455	4822 124 41678	22μF 20% 25V
2456	4822 124 41678	22μF 20% 25V
2457	4822 124 40242	1μF 20% 63V
2458	4822 124 22794	47μF 20% 10V

RESISTORS

3300	4822 116 82366	2Ω2
3301	4822 116 82366	2Ω2
3302	4822 052 10108	1Ω 5% 0,33W

3303	4822 052 10108	1Ω 5% 0,33W
3304	4822 116 52234	100k 5% 0,5W
3305	4822 050 21003	10k 1% 0,6W
3306	4822 050 21005	1M 1% 0,6W
3307	4822 051 10101	100Ω 2% 0,25W
3308	4822 051 10101	100Ω 2% 0,25W
3309	4822 051 10101	100Ω 2% 0,25W
3310	4822 111 92077	15k X7 RESNET 0,1W
3311	4822 050 21803	18k 1% 0,6W
3312	4822 050 21803	18k 1% 0,6W
3313	4822 050 21803	18k 1% 0,6W
3314	4822 050 21803	18k 1% 0,6W
3315	4822 050 21803	18k 1% 0,6W
3316	4822 050 21803	18k 1% 0,6W
3317	4822 050 21803	18k 1% 0,6W
3318	4822 050 21803	18k 1% 0,6W
3319	4822 050 21803	18k 1% 0,6W
3320	4822 050 21803	18k 1% 0,6W
3321	4822 050 21803	18k 1% 0,6W
3322	4822 050 21803	18k 1% 0,6W
3323	4822 050 21803	18k 1% 0,6W
3324	4822 050 21803	18k 1% 0,6W
3325	4822 050 22203	22k 1% 0,6W
3326	4822 050 22203	22k 1% 0,6W
3327	4822 050 22203	22k 1% 0,6W
3328	4822 050 22203	22k 1% 0,6W
3329	4822 050 22203	22k 1% 0,6W
3330	4822 050 22203	22k 1% 0,6W
3331	4822 050 22203	22k 1% 0,6W
3332	4822 050 22203	22k 1% 0,6W
3333	4822 050 22203	22k 1% 0,6W
3334	4822 050 22203	22k 1% 0,6W
3335	4822 050 22203	22k 1% 0,6W
3336	4822 050 22203	22k 1% 0,6W
3337	4822 050 22203	22k 1% 0,6W
3338	4822 050 22203	22k 1% 0,6W
3339	4822 050 21002	1k 1% 0,6W
3401	4822 116 80562	10Ω 5%
3402	4822 050 25604	560k 1% 0,6W
3403	4822 050 22203	22k 1% 0,6W
3404	4822 050 24702	4k7 1% 0,6W
3405	4822 050 22203	22k 1% 0,6W
3406	4822 116 52197	56Ω 5% 0,5W
3407	4822 116 52197	56Ω 5% 0,5W
3408	4822 052 10108	1Ω 5% 0,33W
3409	4822 116 52224	470Ω 5% 0,5W
3410	4822 050 24703	47k 1% 0,6W
3411	4822 050 24703	47k 1% 0,6W
3412	4822 051 10101	100Ω 2% 0,25W
3413	4822 050 24703	47k 1% 0,6W
3414	4822 050 21803	18k 1% 0,6W
3415	4822 050 24703	47k 1% 0,6W
3416	4822 050 11009	10Ω 1% 0,4W
3417	4822 116 52224	470Ω 5% 0,5W
3418	4822 116 52224	470Ω 5% 0,5W
3419	4822 050 24703	47k 1% 0,6W
3420	4822 050 24703	47k 1% 0,6W
3421	4822 050 24703	47k 1% 0,6W
3422	4822 050 24703	47k 1% 0,6W
3423	4822 116 52224	470Ω 5% 0,5W
3424	4822 116 52224	470Ω 5% 0,5W
3425	4822 101 21192	5k LIN
3426	4822 101 30772	5k LOG
3427	4822 051 10101	100Ω 2% 0,25W
3428	4822 051 10101	100Ω 2% 0,25W
3429	4822 116 82366	2Ω2
3430	4822 116 52234	100k 5% 0,5W
3431	4822 116 52234	100k 5% 0,5W
3432	4822 050 22204	220k 1% 0,6W
3433	4822 050 22204	220k 1% 0,6W
3434	4822 050 22204	220k 1% 0,6W
3435	4822 050 22204	220k 1% 0,6W
3436	4822 050 21002	1k 1% 0,6W
3437	4822 050 21002	1k 1% 0,6W
3438	4822 050 21003	10k 1% 0,6W
3439	4822 050 21003	10k 1% 0,6W
3442	4822 050 21201	120Ω 1% 0,6W
3443	4822 050 21201	120Ω 1% 0,6W
3444	4822 116 80562	10Ω 5%
3445	4822 050 24702	4k7 1% 0,6W
3446	4822 116 82366	2Ω2
3447	4822 050 24702	4k7 1% 0,6W
3448	4822 050 24702	4k7 1% 0,6W
3449	4822 050 21002	1k 1% 0,6W
3450	4822 050 21002	1k 1% 0,6W
3451	4822 050 15602	5k6 1% 0,4W
3452	4822 050 15602	5k6 1% 0,4W
3453	4822 050 14709	47Ω 1% 0,4W
3454	4822 050 14709	47Ω 1% 0,4W
3455	4822 116 52244	15k 5% 0,5W
3456	4822 116 52244	15k 5% 0,5W
3457	4822 050 28201	820Ω 1% 0,6W
3458	4822 050 28201	820Ω 1% 0,6W
3459	4822 050 24702	4k7 1% 0,6W
3460	4822 050 24702	4k7 1% 0,6W
3461	4822 051 10101	100Ω 2% 0,25W
3462	4822 051 10101	100Ω 2% 0,25W
3463	4822 050 21803	18k 1% 0,6W
3464	4822 050 21803	18k 1% 0,6W
3465	4822 050 21003	10k 1% 0,6W
3466	4822 050 21003	10k 1% 0,6W
3467	4822 050 22203	22k 1% 0,6W
3468	4822 116 52234	100k 5% 0,5W
3470	4822 050 21003	10k 1% 0,6W
3471	4822 050 21003	10k 1% 0,6W
3472	4822 050 22204	220k 1% 0,6W

3473	4822 050 22003	20k 1% 0,6W
3474	4822 050 24702	4k7 1% 0,6W
3475	4822 050 21003	10k 1% 0,6W
3476	4822 050 24702	4k7 1% 0,6W
3477	4822 050 22204	220k 1% 0,6W
3478	4822 050 21003	10k 1% 0,6W
3479	4822 050 24703	47k 1% 0,6W
3480	4822 050 21005	1M 1% 0,6W
3481	4822 050 24703	47k 1% 0,6W
3490	4822 050 21502	1k5 1% 0,6W
3491	4822 050 22203	22k 1% 0,6W
3492	4822 050 21003	10k 1% 0,6W
3493	4822 116 52224	470Ω 5% 0,5W
3494	4822 050 22202	2k2 1% 0,6W

COILS and RESONATORS

5001	4822 146 31061	MAINS TRAFO
5300	4822 242 72567	RESONATOR 4MHz

DIODES

6300	4822 130 30621	1N4148
6301	4822 130 30621	1N4148
6302	4822 130 30621	1N4148
6303	4822 130 30621	1N4148
6304	4822 130 30621	1N4148
6305	4822 130 30621	1N4148
6306	4822 130 30621	1N4148
6307	4822 130 30621	1N4148
6308	4822 130 30621	1N4148
6310	4822 130 91081	DISPLAY
6400	4822 130 31438	1N4001GP
6401	4822 130 31438	1N4001GP
6402	4822 130 31438	1N4001GP
6403	4822 130 31438	1N4001GP
6404	5322 130 30684	1N4002GP
6405	4822 130 30621	1N4148
6406	4822 130 30621	1N4148
6407	4822 130 34121	BAX18
6408	4822 130 34379	BZX79-C27
6409	4822 130 31981	BZX79-C3V9
6410	4822 130 34173	BZX79-C5V6
6411	4822 130 30621	1N4148
6412	4822 130 30621	1N4148
6413	4822 130 31983	BAT85
6414	4822 130 31983	BAT85
6415	4822 130 30621	1N4148
6416	4822 130 30621	1N4148
6431	4822 130 34278	BZX79-C6V8
6450	4822 130 30621	1N4148
6451	4822 130 30621	1N4148
6452	4822 130 30621	1N4148
6453	4822 130 30621	1N4148
6490	4822 130 34195	BZX79-C13

TRANSISTORS & IC's

7300	4822 130 40937	BC548B
7301	4822 209 52199	68HC05C4PROG
7303	4822 130 44197	BC558B
7304	4822 130 44197	BC558B
7305	4822 130 44197	BC558B
7306	4822 130 44197	BC558B
7307	4822 130 44197	BC558B
7308	4822 130 44197	BC558B
7309	4822 130 44197	BC558B
7310	4822 130 44197	BC558B
7311	4822 130 44197	BC558B
7312	4822 130 44197	BC558B
7313	4822 130 44197	BC558B
7314	4822 130 44197	BC558B
7315	4822 130 44197	BC558B
7316	4822 130 44197	BC558B
7317	4822 130 40937	BC548B
7400	4822 130 40937	BC548B
7401	4822 209 80808	7815CT
7402	4822 209 80891	7805CT
7403	4822 209 80891	7805CT
7404	4822 130 40854	BC327
7405	4822 130 44197	BC558B
7406	4822 130 40937	BC548B
7407	4822 209 70157	NJM4560DD
7408	4822 209 82362	NJM4556D
7409	4822 130 40855	BC337
7410	4822 209 80631	LM339N
7411	4822 130 40937	BC548B
7412	4822 130 40937	BC548B
7413	4822 130 40937	BC548B
7450	4822 209 71636	TC4016BP
7451	4822 130 40937	BC548B
7452	4822 130 44197	BC558B
7490	4822 130 40937	BC548B
7491	4822 130 40937	BC548B
7492	4822 130 41715	BC328-40

PARTSLIST RE-MODULE

MISCELLANEOUS

1626	4822 100 11869	20k 0,1W
1627	4822 100 11869	20k 0,1W
1628	4822 100 11869	20k 0,1W
1630	4822 100 11869	20k 0,1W
1631	4822 100 11869	20k 0,1W
1632	4822 100 11869	20k 0,1W
1633	4822 100 11676	10k 30%LIN 0.2W
1634	4822 100 11676	10k 30%LIN 0.2W
1635	4822 100 11676	10k 30%LIN 0.2W
1636	4822 100 11676	10k 30%LIN 0.2W
1661	4822 071 53151	19372(315MA)

CAPACITORS

2619	4822 126 12103	680nF 80%20 50V
2620	4822 124 40177	47µF 20% 10V
2621	4822 122 33064	330nF 80% 25V
2622	4822 126 10002	100nF 20% 25V
2623	4822 126 10002	100nF 20% 25V
2624	4822 122 31947	100nF 20% 63V
2630	5322 122 34123	1nF 10% 50V
2633	5322 122 32654	22nF 10% 63V
2634	4822 124 40435	10µF 20% 50V
2635	5322 122 34123	1nF 10% 50V
2636	5322 122 32654	22nF 10% 63V
2637	4822 121 51598	2,2nF 5% 400V
2639	5322 122 32654	22nF 10% 63V
2640	5322 122 32654	22nF 10% 63V
2641	4822 126 10002	100nF 20% 25V
2642	4822 126 10002	100nF 20% 25V
2643	4822 122 31808	150pF 10% 50V
2644	5322 122 32654	22nF 10% 63V
2645	4822 122 32575	220pF 10% 500V
2646	4822 121 51362	15nF 5% 100V
2647	4822 121 51362	15nF 5% 100V
2648	4822 122 32575	220pF 10% 500V
2649	4822 122 33177	10nF 20% 50V
2650	4822 122 32575	220pF 10% 500V
2651	4822 122 32575	220pF 10% 500V
2652	5322 122 31863	330pF 5% 50V
2653	5322 122 31863	330pF 5% 50V
2654	4822 122 31727	470pF 5% 63V
2655	4822 124 22263	
2656	4822 124 40177	47µF 20% 10V
2658	5322 122 32654	22nF 10% 63V
2659	4822 124 41584	100µF 20% 10V
2660	4822 124 40177	47µF 20% 10V
2663	5322 122 32268	470pF 10% 50V
2664	5322 122 32268	470pF 10% 50V
2665	5322 122 33538	150pF 5% 63V
2666	5322 122 33538	150pF 5% 63V
2669	5322 122 32531	100pF 5% 50V
2670	5322 122 32531	100pF 5% 50V
2671	4822 126 12102	330nF 80%20 50V
2672	4822 126 12102	330nF 80%20 50V
2673	4822 126 12101	39nF 10% 50V
2674	4822 126 12101	39nF 10% 50V
2677	4822 124 40246	4,7µF 20% 63V
2678	4822 124 40246	4,7µF 20% 63V
2679	5322 122 32268	470pF 10% 50V
2680	5322 122 32268	470pF 10% 50V
2681	5322 122 32268	470pF 10% 50V
2682	5322 122 32268	470pF 10% 50V
2683	4822 124 40433	47µF 20% 25V
2685	5322 122 34123	1nF 10% 50V
2686	5322 122 34123	1nF 10% 50V
2688	4822 124 40435	10µF 20% 50V
2690	4822 126 10002	100nF 20% 25V
2692	4822 122 33339	4.7nF 10% 50V 0805
2694	4822 122 33218	
2695	4822 122 33515	82pF 5% 63V
2696	4822 122 33515	82pF 5% 63V
2697	4822 126 10326	180pF
2698	4822 126 10326	180pF
2699	5322 122 32654	22nF 10% 63V
2700	5322 122 32654	22nF 10% 63V
2701	4822 126 10326	180pF
2702	4822 126 10326	180pF
2703	4822 122 33216	270pF 5% 50V
2704	4822 122 33216	270pF 5% 50V
2705	5322 122 32448	10pF 5% 50V
2706	5322 122 32448	10pF 5% 50V
2707	4822 122 33893	18nF 10% 63V
2708	4822 122 33893	18nF 10% 63V
2709	5322 122 32531	100pF 5% 50V
2710	5322 122 32531	100pF 5% 50V
2713	4822 124 40246	4,7µF 20% 63V
2714	4822 124 40246	4,7µF 20% 63V
2715	4822 124 40246	4,7µF 20% 63V
2716	4822 124 40246	4,7µF 20% 63V
2717	5322 122 32268	470pF 10% 50V
2718	4822 122 31727	470pF 5% 63V
2719	5322 122 32268	470pF 10% 50V
2720	5322 122 32268	470pF 10% 50V
2721	5322 121 42661	330nF 5% 63V
2722	5322 121 42661	330nF 5% 63V

2724	4822 126 10002	100nF 20% 25V
2725	4822 126 10002	100nF 20% 25V
2726	4822 124 41525	100µF 20% 25V
2727	4822 124 40433	47µF 20% 25V
2728	4822 122 33496	100nF 10% 63V
2729	4822 122 32999	2,2N 5% NPO
2730	4822 122 32999	2,2N 5% NPO
2731	4822 122 32999	2,2N 5% NPO
2732	4822 122 32999	2,2N 5% NPO
2733	4822 121 51412	560nF 10% 63V
2734	4822 121 51412	560nF 10% 63V
2735	4822 124 40242	1µF 20% 63V
2736	4822 124 40242	1µF 20% 63V
2737	4822 124 40246	4,7µF 20% 63V
2738	4822 124 40246	4,7µF 20% 63V
2739	4822 124 40246	4,7µF 20% 63V
2740	4822 124 40246	4,7µF 20% 63V
2741	5322 122 32531	100pF 5% 50V
2742	5322 122 32531	100pF 5% 50V
2743	4822 122 33128	15nF 10% 63V
2744	4822 122 33128	15nF 10% 63V
2745	4822 124 40239	0,47µF 20% 63V
2746	4822 124 40239	0,47µF 20% 63V
2747	5322 122 33446	3,3nF 10% 63V
2748	5322 122 33446	3,3nF 10% 63V
2751	5322 122 32654	22nF 10% 63V
2752	5322 122 32654	22nF 10% 63V
2753	4822 126 10002	100nF 20% 25V
2754	4822 124 40196	220µF 20% 16V
2755	5322 122 32654	22nF 10% 63V
2756	4822 126 10002	100nF 20% 25V
2757	4822 124 22412	2200µF 20% 16V
2758	4822 124 40246	4,7µF 20% 63V
2759	4822 124 40246	4,7µF 20% 63V
2760	4822 124 40433	47µF 20% 25V
2761	4822 122 33496	100nF 10% 63V
2762	4822 122 31746	1000pF 5% 50V
2763	4822 126 10002	100nF 20% 25V
2764	4822 122 33174	1,5nF 20% 50V
2765	4822 122 33174	1,5nF 20% 50V

RESISTORS

3501	4822 051 10008	0Ω 5% 0,25W
3502	4822 051 20008	0Ω 5% 0,1W
3503	4822 051 20008	0Ω 5% 0,1W
3504	4822 051 10008	0Ω 5% 0,25W
3505	4822 051 10008	0Ω 5% 0,25W
3506	4822 051 20008	0Ω 5% 0,1W
3507	4822 051 20008	0Ω 5% 0,1W
3508	4822 051 10008	0Ω 5% 0,25W
3509	4822 051 10008	0Ω 5% 0,25W
3513	4822 051 10008	0Ω 5% 0,25W
3515	4822 051 10008	0Ω 5% 0,25W
3516	4822 051 20008	0Ω 5% 0,1W
3517	4822 051 10008	0Ω 5% 0,25W
3520	4822 051 10008	0Ω 5% 0,25W
3524	4822 051 20008	0Ω 5% 0,1W
3527	4822 051 20008	0Ω 5% 0,1W
3528	4822 051 10008	0Ω 5% 0,25W
3529	4822 051 20008	0Ω 5% 0,1W
3530	4822 051 10008	0Ω 5% 0,25W
3531	4822 051 10008	0Ω 5% 0,25W
3532	4822 051 10008	0Ω 5% 0,25W
3533	4822 051 10008	0Ω 5% 0,25W
3534	4822 051 10008	0Ω 5% 0,25W
3535	4822 051 10008	0Ω 5% 0,25W
3536	4822 051 10008	0Ω 5% 0,25W
3537	4822 051 10008	0Ω 5% 0,25W
3538	4822 051 10008	0Ω 5% 0,25W
3539	4822 051 10008	0Ω 5% 0,25W
3540	4822 051 10008	0Ω 5% 0,25W
3542	4822 051 10008	0Ω 5% 0,25W
3543	4822 051 10008	0Ω 5% 0,25W
3544	4822 051 10008	0Ω 5% 0,25W
3545	4822 051 10008	0Ω 5% 0,25W
3546	4822 051 10008	0Ω 5% 0,25W
3547	4822 051 10008	0Ω 5% 0,25W
3548	4822 051 10008	0Ω 5% 0,25W
3549	4822 051 10008	0Ω 5% 0,25W
3550	4822 051 10008	0Ω 5% 0,25W
3551	4822 051 10008	0Ω 5% 0,25W
3552	4822 051 10008	0Ω 5% 0,25W
3553	4822 051 10008	0Ω 5% 0,25W
3554	4822 051 10008	0Ω 5% 0,25W
3555	4822 051 10008	0Ω 5% 0,25W
3556	4822 051 10008	0Ω 5% 0,25W
3557	4822 051 10008	0Ω 5% 0,25W
3558	4822 051 10008	0Ω 5% 0,25W
3559	4822 051 20008	0Ω 5% 0,1W
3560	4822 051 10008	0Ω 5% 0,25W
3561	4822 051 20008	0Ω 5% 0,1W
3562	4822 051 10008	0Ω 5% 0,25W
3563	4822 051 10008	0Ω 5% 0,25W
3564	4822 051 10008	0Ω 5% 0,25W
3565	4822 051 10008	0Ω 5% 0,25W
3566	4822 051 10008	0Ω 5% 0,25W
3567	4822 051 20008	0Ω 5% 0,1W

3568	4822 051 20008	0Ω	5%	0,1W
3570	4822 051 10008	0Ω	5%	0,25W
3571	4822 051 10008	0Ω	5%	0,25W
3572	4822 051 20008	0Ω	5%	0,1W
3573	4822 051 20008	0Ω	5%	0,1W
3574	4822 051 10008	0Ω	5%	0,25W
3575	4822 051 10008	0Ω	5%	0,25W
3576	4822 051 10008	0Ω	5%	0,25W
3578	4822 051 20008	0Ω	5%	0,1W
3579	4822 051 20008	0Ω	5%	0,1W
3580	4822 051 10008	0Ω	5%	0,25W
3581	4822 051 10008	0Ω	5%	0,25W
3589	4822 051 10008	0Ω	5%	0,25W
3590	4822 051 10008	0Ω	5%	0,25W
3592	4822 051 10008	0Ω	5%	0,25W
3593	4822 051 20008	0Ω	5%	0,1W
3594	4822 051 20008	0Ω	5%	0,1W
3595	4822 051 10008	0Ω	5%	0,25W
3596	4822 051 20008	0Ω	5%	0,1W
3600	4822 051 20473	47k	5%	0,1W
3601	4822 051 20103	10k	5%	0,1W
3602	4822 051 20104	100k	5%	0,1W
3603	4822 051 20104	100k	5%	0,1W
3604	4822 051 20223	22k	5%	0,1W
3605	4822 051 20223	22k	5%	0,1W
3606	4822 051 10102	1k	2%	0,25W
3607	4822 051 20223	22k	5%	0,1W
3609	4822 051 20223	22k	5%	0,1W
3610	4822 051 20103	10k	5%	0,1W
3611	4822 051 20103	10k	5%	0,1W
3616	4822 051 20273	27k	5%	0,1W
3617	4822 051 20153	15k	5%	0,1W
3618	4822 051 20153	15k	5%	0,1W
3619	4822 051 20104	100k	5%	0,1W
3620	4822 051 20472	4k7	5%	0,1W
3621	4822 051 20332	3k3	5%	0,1W
3623	4822 051 20472	4k7	5%	0,1W
3624	4822 051 20472	4k7	5%	0,1W
3625	4822 051 20223	22k	5%	0,1W
3626	4822 051 20472	4k7	5%	0,1W
3628	4822 051 20471	470Ω	5%	0,1W
3629	4822 051 20223	22k	5%	0,1W
3630	4822 051 20159	15Ω	5%	0,1W
3631	4822 051 20159	15Ω	5%	0,1W
3635	4822 051 20471	470Ω	5%	0,1W
3636	4822 051 20222	2k2	5%	0,1W
3637	4822 051 20222	2k2	5%	0,1W
3638	4822 051 20471	470Ω	5%	0,1W
3639	4822 051 20471	470Ω	5%	0,1W
3640	4822 051 20471	470Ω	5%	0,1W
3641	4822 051 20471	470Ω	5%	0,1W
3642	4822 051 20222	2k2	5%	0,1W

3643	4822 051 20222	2k2	5%	0,1W
3644	5322 116 55012	47Ω	5%	2,5W
3645	5322 116 55012	47Ω	5%	2,5W
3647	4822 051 20472	4k7	5%	0,1W
3648	4822 051 10102	1k	2%	0,25W
3649	4822 051 10102	1k	2%	0,25W
3650	4822 051 20279	27Ω	5%	0,1W
3651	4822 051 20279	27Ω	5%	0,1W
3654	4822 051 20104	100k	5%	0,1W
3655	4822 051 20104	100k	5%	0,1W
3656	4822 051 20472	4k7	5%	0,1W
3657	4822 051 20472	4k7	5%	0,1W
3660	4822 051 20103	10k	5%	0,1W
3661	4822 051 20473	47k	5%	0,1W
3662	4822 051 20473	47k	5%	0,1W
3664	4822 051 20103	10k	5%	0,1W
3665	4822 051 20103	10k	5%	0,1W
3666	4822 051 20221	220Ω	5%	0,1W
3667	4822 051 20221	220Ω	5%	0,1W
3668	4822 051 20223	22k	5%	0,1W
3669	4822 051 20223	22k	5%	0,1W
3670	4822 051 20223	22k	5%	0,1W
3671	4822 051 20223	22k	5%	0,1W
3672	4822 051 20223	22k	5%	0,1W
3673	4822 051 20105	1M	5%	0,1W
3674	4822 051 10102	1k	2%	0,25W
3675	4822 051 10102	1k	2%	0,25W
3676	4822 051 20123	12k	5%	0,1W
3677	4822 051 20223	22k	5%	0,1W
3678	4822 051 20473	47k	5%	0,1W
3679	4822 116 51455	6Ω8		2,5W
3680	4822 051 20473	47k	5%	0,1W
3681	4822 051 20109	10Ω	5%	0,1W
3682	4822 051 20105	1M	5%	0,1W
3684	4822 051 20472	4k7	5%	0,1W
3685	4822 051 20472	4k7	5%	0,1W
3687	4822 051 10102	1k	2%	0,25W
3688	4822 051 10102	1k	2%	0,25W
3689	4822 051 20101	100Ω	5%	0,1W
3690	4822 051 20101	100Ω	5%	0,1W
3691	4822 051 10102	1k	2%	0,25W
3692	4822 051 10102	1k	2%	0,25W
3693	4822 051 10102	1k	2%	0,25W
3694	4822 051 10102	1k	2%	0,25W
3695	4822 051 20153	15k	5%	0,1W
3696	4822 051 20822	8k2	5%	0,1W
3697	4822 051 20103	10k	5%	0,1W
3698	4822 051 20153	15k	5%	0,1W
3699	4822 051 20103	10k	5%	0,1W
3700	4822 051 20472	4k7	5%	0,1W
3701	4822 051 20154	150k	5%	0,1W
3702	4822 051 20154	150k	5%	0,1W

3703	4822 051 20103	10k	5%	0,1W
3704	4822 051 20103	10k	5%	0,1W
3705	4822 051 20223	22k	5%	0,1W
3706	4822 051 20103	10k	5%	0,1W
3707	4822 051 20103	10k	5%	0,1W
3708	4822 051 20103	10k	5%	0,1W
3709	4822 051 20103	10k	5%	0,1W
3710	4822 051 20103	10k	5%	0,1W
3711	4822 051 20182	1k8	5%	0,1W
3712	4822 051 20182	1k8	5%	0,1W
3713	4822 051 20682	6k8	5%	0,1W
3714	4822 051 20682	6k8	5%	0,1W
3715	4822 051 20392	3k9	5%	0,1W
3716	4822 051 20392	3k9	5%	0,1W
3717	4822 051 20822	8k2	5%	0,1W
3718	4822 051 20223	22k	5%	0,1W
3719	4822 051 20823	82k	5%	0,1W
3720	4822 051 20823	82k	5%	0,1W
3721	4822 051 20184	180k	5%	0,1W
3722	4822 051 20184	180k	5%	0,1W
3723	4822 051 20474	470k	5%	0,1W
3724	4822 051 20474	470k	5%	0,1W
3725	4822 051 20563	56k	5%	0,1W
3726	4822 051 20563	56k	5%	0,1W
3727	4822 051 20103	10k	5%	0,1W
3728	4822 051 20109	10Ω	5%	0,1W
3729	4822 051 20104	100k	5%	0,1W
3730	4822 051 20104	100k	5%	0,1W
3731	4822 051 10102	1k	2%	0,25W
3732	4822 051 10102	1k	2%	0,25W
3733	4822 051 20153	15k	5%	0,1W
3734	4822 051 20153	15k	5%	0,1W
3735	4822 051 20822	8k2	5%	0,1W
3736	4822 051 20822	8k2	5%	0,1W
3737	4822 051 20103	10k	5%	0,1W
3738	4822 051 20222	2k2	5%	0,1W
3739	4822 051 10102	1k	2%	0,25W
3740	4822 051 10102	1k	2%	0,25W
3741	4822 051 20332	3k3	5%	0,1W
3742	4822 051 10102	1k	2%	0,25W
3743	4822 051 20332	3k3	5%	0,1W
3744	4822 051 20332	3k3	5%	0,1W
3745	4822 051 20562	5k6	5%	0,1W
3746	4822 051 20562	5k6	5%	0,1W
3747	4822 051 20561	560Ω	5%	0,1W
3748	4822 051 20561	560Ω	5%	0,1W
3749	4822 051 20273	27k	5%	0,1W
3750	4822 051 20223	22k	5%	0,1W
3751	4822 051 20243	24k	5%	0,1W
3752	4822 051 20243	24k	5%	0,1W
3753	4822 051 20008	0Ω	5%	0.1W
3754	4822 051 20109	10Ω	5%	0,1W
3755	4822 051 20109	10Ω	5%	0,1W
3756	4822 051 20222	2k2	5%	0,1W
3757	4822 051 20222	2k2	5%	0,1W
3758	4822 051 20471	470Ω	5%	0,1W
3759	4822 051 20471	470Ω	5%	0,1W
3761	4822 051 20103	10k	5%	0,1W
3762	4822 051 20103	10k	5%	0,1W
3764	4822 051 20479	47Ω	5%	0,1W
3765	4822 051 20223	22k	5%	0,1W
3766	4822 051 20223	22k	5%	0,1W
3767	4822 051 20222	2k2	5%	0,1W
3768	4822 051 20222	2k2	5%	0,1W
3769	4822 051 20222	2k2	5%	0,1W
3771	4822 051 20105	1M	5%	0,1W
3772	4822 051 20223	22k	5%	0,1W
3773	4822 051 20823	82k	5%	0,1W
3774	4822 051 20823	82k	5%	0,1W
3779	4822 051 20271	270Ω	5%	0,1W
3780	4822 051 20271	270Ω	5%	0,1W
3781	4822 051 20271	270Ω	5%	0,1W
3782	4822 051 20271	270Ω	5%	0,1W
3783	4822 051 20479	47Ω	5%	0,1W
3784	4822 051 20479	47Ω	5%	0,1W
3786	4822 051 20103	10k	5%	0,1W
3789	4822 051 10102	1k	2%	0,25W
3790	4822 051 20272	2k7	5%	0,1W
3791	4822 051 20104	100k	5%	0,1W
3792	4822 051 20272	2k7	5%	0,1W
3793	4822 051 20101	100Ω	5%	0,1W
3794	4822 051 20154	150k	5%	0,1W
3796	4822 051 20153	15k	5%	0,1W
3797	4822 051 20153	15k	5%	0,1W
3798	4822 051 20154	150k	5%	0,1W
3799	4822 051 20333	33k	5%	0,1W
3800	4822 051 20109	10Ω	5%	0,1W
3801	4822 051 20563	56k	5%	0,1W
3802	4822 051 20563	56k	5%	0,1W
3803	4822 051 20104	100k	5%	0,1W
3804	4822 051 20104	100k	5%	0,1W
3805	4822 051 20104	100k	5%	0,1W
3806	4822 051 20104	100k	5%	0,1W
3807	4822 051 20105	1M	5%	0,1W
3808	4822 051 20105	1M	5%	0,1W
3811	4822 051 10102	1k	2%	0,25W
3812	4822 051 20474	470k	5%	0,1W
3813	4822 051 20474	470k	5%	0,1W
3814	4822 051 20472	4k7	5%	0,1W
3815	4822 051 20472	4k7	5%	0,1W
3816	4822 051 20471	470Ω	5%	0,1W

3817	4822 051 20471	470Ω 5% 0,1W
3820	4822 116 40227	4Ω6 25% 12V
3821	4822 051 20008	0Ω 5% 0,1W
3822	4822 051 20008	0Ω 5% 0,1W
3823	4822 051 20473	47k 5% 0,1W
3824	4822 051 20159	15Ω 5% 0,1W
3826	4822 051 10102	1k 2% 0,25W
3827	4822 051 10102	1k 2% 0,25W
3900	4822 051 20103	10k 5% 0,1W
3901	4822 051 20103	10k 5% 0,1W
3902	4822 051 20103	10k 5% 0,1W
3903	4822 051 20103	10k 5% 0,1W

COILS and RESONATORS

5625	4822 156 20946	
5626	4822 157 63864	
5627	4822 157 63864	
5628	4822 156 20811	10ΩB/181LY-363J TOKO
5629	4822 156 20811	10ΩB/181LY-363J TOKO
5630	4822 156 20811	10ΩB/181LY-363J TOKO
5631	4822 156 20811	10ΩB/181LY-363J TOKO
5632	4822 242 73768	5332-042 SUMIDA
5633	4822 242 73768	5332-042 SUMIDA
5634	4822 242 73557	4 000,000 MHz

DIODES

6625	5322 130 31928	BAS16
6627	5322 130 31928	BAS16
6631	5322 130 34331	BAV70

TRANSISTORS & IC's

7625	4822 130 60511	BC847B
7626	4822 130 60511	BC847B
7627	5322 130 60123	BC807-40
7628	5322 130 60123	BC807-40
7629	5322 130 60123	BC807-40
7630	5322 130 60123	BC807-40
7631	5322 130 60123	BC807-40
7632	5322 130 60123	BC807-40
7633	4822 130 42615	BC817-40
7634	4822 130 42615	BC817-40
7635	4822 130 42615	BC817-40
7636	4822 130 42615	BC817-40
7637	5322 130 41982	BC848B
7638	5322 130 41982	BC848B
7639	4822 130 42615	BC817-40
7640	4822 130 42615	BC817-40
7641	5322 130 41983	BC858B
7642	5322 130 41983	BC858B
7643	5322 130 41982	BC848B
7644	5322 130 41982	BC848B
7645	5322 130 41982	BC848B
7646	5322 130 41982	BC848B
7647	5322 130 61569	BC868
7648	5322 130 61569	BC868
7649	4822 130 42615	BC817-40
7651	5322 130 41982	BC848B
7652	5322 130 41982	BC848B
7654	5322 130 41982	BC848B
7655	5322 130 41982	BC848B
7659	5322 130 41982	BC848B
7660	5322 130 41982	BC848B
7661	5322 130 41982	BC848B
7663	5322 130 41982	BC848B
7664	5322 130 41982	BC848B
7665	5322 130 41982	BC848B
7666	5322 130 41982	BC848B
7701	4822 209 31135	HEF4016BT
7702	4822 209 31135	HEF4016BT
7703	4822 209 31135	HEF4016BT
7704	4822 209 83274	NJM4560D
7705	4822 209 73994	NJM3415D
7706	4822 209 62372	TDA1602A/N3
7708	5322 209 12171	PC74HC4094T
7709	4822 209 31133	COP880C
7710	4822 209 72874	UPC1297CA
7711	4822 209 31134	CXA1331S
7720	4822 209 31137	HEF7069UBT
7721	4822 209 31137	HEF7069UBT

PHILIPS

4496

SI Wichtig für die Werkstatt!

Nummer: 51043

Sachgebiet: Hifi AC 51

Datum: 03.12.1992

Service Information

Betrifft: Hifi-Doppel-Cassettendeck
70 FC 930

Verteiler: INTERN UND EXTERN

Im Verlauf der Fertigung sind folgende Änderungen eingeführt worden (s. Service Manual S. 16 - 18):

- 2419, 2420 (1µF) geändert in 4,7 µF/63V 4822 124 40246
- 3402 (560k) " " 330k 4822 116 52272
- 3430, 3431 (100k) " " 22k 4822 050 22203
- Easylink - Eingang/Ausgang geändert durch Hinzufügen von (s. Abb.):

7414, 7415	BC 548 B	4822 130 40937
6417	BAT 85	4822 130 31983
3495	47k	4822 050 24703
3496	220k	4822 050 22204

4812 829 51043

Form 80048

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Service
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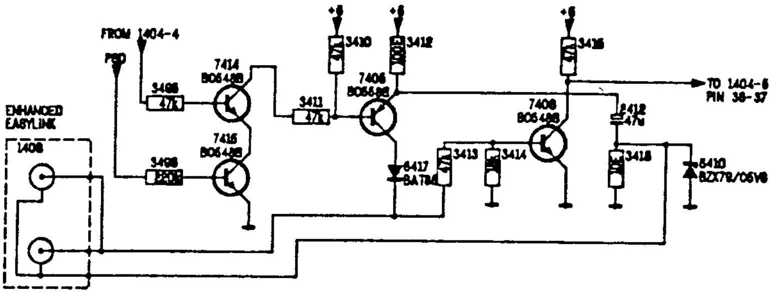
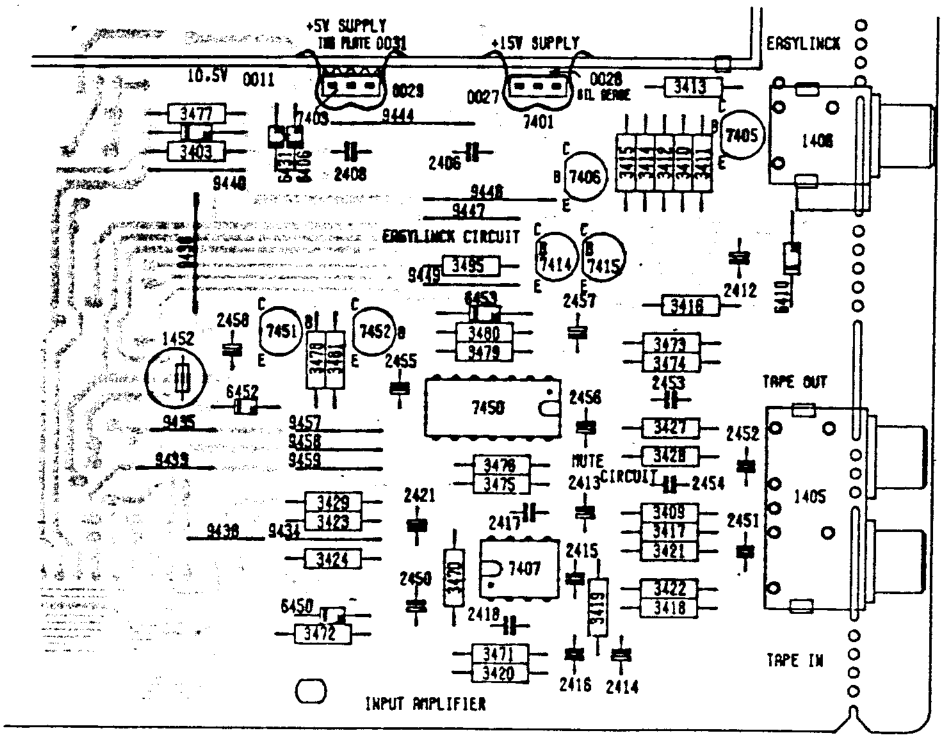
Philips GmbH · Geschäftsbereich Service · Hamburg 1

Nachdruck nicht gestattet! Änderungen vorbehalten.


FROM 1404-4
PBD
ENHANCED
EASYLINK
1408
3496
47k
3498
220R
7414
BC548B
7415
BC548B
3411
47k
+5
3410
47k
+5
3412
100R
7406
BC558B
6417
BAT85
3413
47k
3414
7408
BC548B
+5
3416
47k
TO 1404-6
PIN 36-37
2412
47u
3418
6410
BZX79/C6V8


+5V SUPPLY
TH8 PLATE 0031
+15V SUPPLY
10.5V
OIL SENSE
EASYLINCK
EASYLINCK CIRCUIT
TAPE OUT
MUTE
CIRCUIT
TAPE IN
INPUT AMPLIFIER
C
B
E

4496

FC930

A92-156

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Product Service Group CE Audio

Service Information

Adaption of Manual 4822 725 23907

Following parts of the tape transports are available:

Mechanical parts

14	4822 403 20239	LEVER PINCH ROLLER
16	4822 492 71106	SPRING PINCH ROLLER
18	4822 535 93315	TAPE GUIDE RIGHT
24	4822 403 20241	LEVER PINCH ROLLER
26	4822 492 71107	SPRING PINCH ROLLER
28	4822 535 93314	TAPE GUIDE LEFT
34	4822 358 31184	DRIVING BELT
50	4822 528 70793	PINCH ROLLER
60	4822 528 70793	PINCH ROLLER
115	4822 529 10254	DAMPER (MOTOR)
116	4822 502 11866	SCREW (MOTOR)

Complete Tape Deck

left deck	4822 691 20775	RER-2
right deck	4822 691 20763	RER-3

Electrical parts

1021	4822 249 30181	PLAY BACK HEAD		
1021	4822 249 10434	REC/PB HEAD		
1023	4822 361 21506	MOTOR (CAPSTAN)		
1024	4822 361 21516	MOTOR (WINDING)		
1706	4822 276 12889	SWITCH		
1707	4822 276 12889	SWITCH		
1708	4822 276 12889	SWITCH		
1709	4822 276 12889	SWITCH		
1710	4822 276 12889	SWITCH		
3701	4822 116 52244	15k	5%	0,5W
3702	4822 116 52234	100k	5%	0,5W
3703	4822 116 52264	27k	5%	0,5W
3704	4822 100 20166	10k TRIMPOT.		
3705	4822 100 20589	TRIMPOT. 20k LIN.		
3706	4822 050 21002	1k	1%	0,6W
3706	4822 050 21002	1k	1%	0,6W
7701	5322 130 60068	BC558C		
7703	4822 209 31115	NJL5165KA		

4431

70FC930

A92-263

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Product Service Group CE Audio

Service Information

For 70FC930 the Korea version /**13S** has been introduced
We refer to the Service manual 70FC930 codnr.4822 725 23907 ,except the following changes:

Position	Codenumber	Description
	4822 736 21587	I.F.U
342	4822 263 50179	ADAPTOR
402	4822 443 41196	FRONT ASSY
419	4822 410 62347	BUTTON ASSY SCAN A
421	4822 410 62348	BUTTON ASSY SCAN B
446	4822 321 10701	MAINS CORD
406	4822 450 61991	CASS. WINDOW (A)
413	4822 450 61992	CASS. WINDOW (B)
1409	4822 272 10269	VOLT SELECTOR

1992-08-14

GB 4822 725 23932

PCS 57 783

4496

70FC930

A92-264

Service
Service
Service

Product Service Group CE Audio

Service Information

During production the following changes were made :

70FC930 all version

To improve better overalles frequentie-responce (roll-off) at 63Hz change elko item 2419,2420 from 1µF 63V to 4,7µF 63V. 4822 124 40246

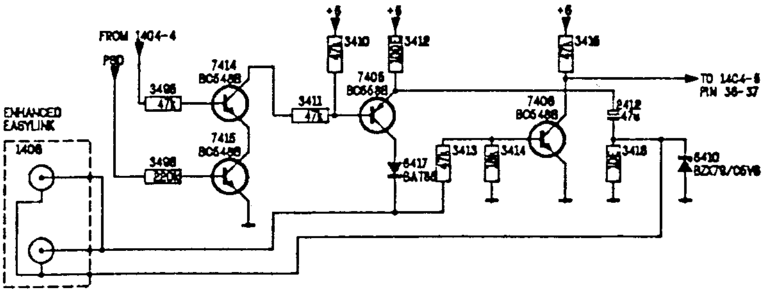
To solve tape salad by mainsfailure change resistor item 3402 to 330k 1/8W 4822 116 52272

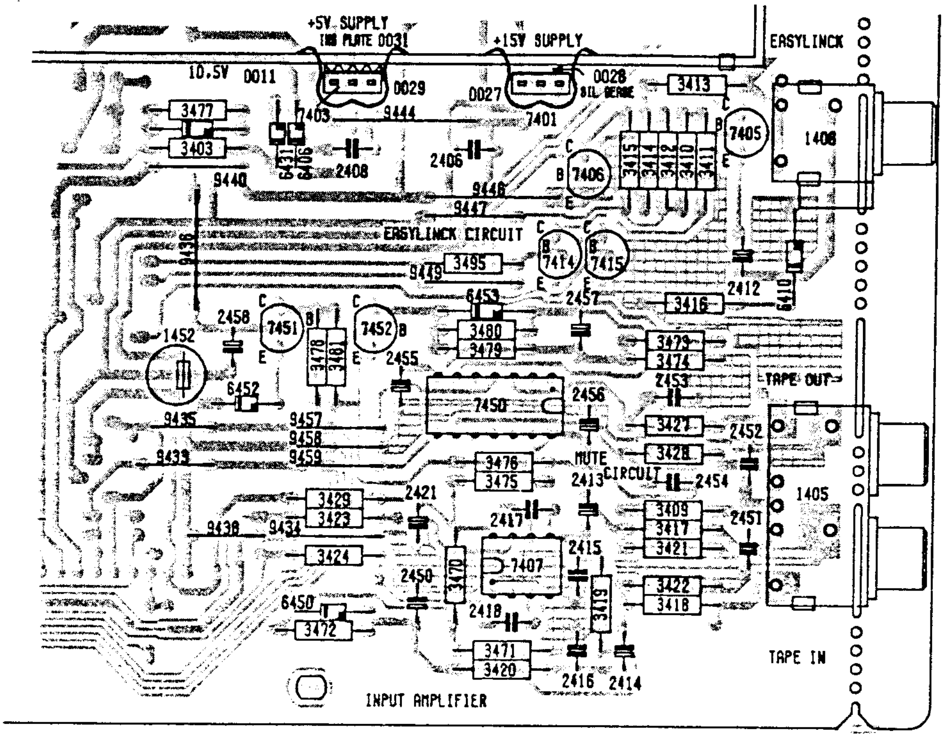
To solve reduce power-on plop change resistor item 3430,3431 from 100k to 22k 4822 050 22203

Adaption of Supply-Digital circuit diagram transistor item 7414 BC548B 4822 130 40937 and resistor item 3495 47k. 4822 050 24703

To improve extra easylinck protection for switching power-off add resistor item 3496 220k 4822 050 22204 ,transistor item 7415 BC548B 4822 130 40937 ,and diode item 6417 BAT85. 4822 130 31983

* * R3334 = 2K7 FOR FR380


FROM 1404-4
PSD
ENHANCED EASYLINK
1406
3495
47k
3496
220k
7414
BC548B
7415
BC548B
3411
47k
+5
3410
47k
+5
3412
100E
7405
BC558B
6417
BAT85
3413
47k
3414
7406
BC548B
+5
3416
47k
TO 1404-5 PIN 36-37
2412
47u
3418
6410
BZX79/C6V8


+5V SUPPLY
+15V SUPPLY
EASYLINCK
10.5V
EASYLINCK CIRCUIT
TAPE OUT
MUTE
CIRCUIT
TAPE IN
INPUT AMPLIFIER
C
B
E

4496

70FC930

A93-455

Service
Service
Service

Product Service Group CE Audio

Service Information

70FC930 all version

Problem:
It is possible that through using the operating sequence PLAY-EJECT without STOP button,the fuse 1661 on the RE module can go defect.
Solution:
Change in the RE module the fuse 1661 by a PTC resistor. Service codenumber PTC 4822 116 40227

*From week 9312 this is introduced in production.

It was not possible with cassette deck FC930 to erase a metal cassette.
This can by solved through the following changes:
change resistor item 3676 12k into 1k5 service codenumber 4822 051 20152
change capacitor item 2643 150pF into 56pF service codenumber 5322 122 32661

*From week 9313 this is introduced in production.

Problem: 70FC910
When Deck A is actuated in Fast Forward or Fast Reverse Mode, the autostop doesn't work function properly **during** the Play Back Mode of Deck B .

Solution:
change resistor 3493 from 470r to 2k2 codnr.4822 050 22202
change resistor 3494 from 2k2 to 470r codnr.4822 050 24701

*From week 9245 this is introduced in production.
**Though the autostop function is mechanically implemented in the tape decks of 70FC930, this modification has also been applied in 70FC930 (same main printed board)

1993-05-27

4822 725 23959

4436

70FC930

A93-455

Service
Service
Service

Product Service Group CE Audio

Service Information

70FC930 all version

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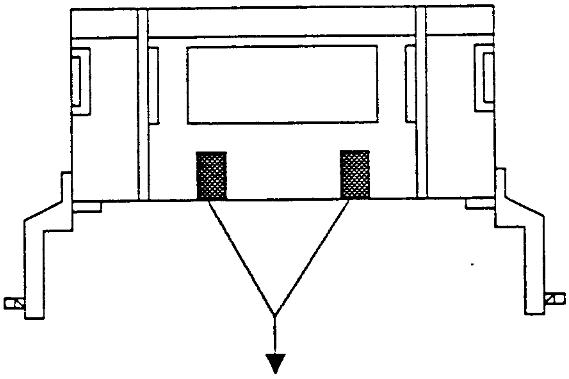
1993-05-27

4822 725 23959

2. Vorbeugende Änderung.
Um sicherzustellen, daß die Cassette die richtige Position im Cassettenfach einnimmt, kann entweder:

- das Cassettenfach mit 2 einzuklebenden Filzplättchen modifiziert werden. Abmessungen und Lage der Filze sind aus der Abbildung zu erkennen (wichtig ist die Filzdicke 1,5mm; Länge und Breite der Filzplättchen sind unkritisch).



oder

- das Cassettenfach gegen eine geänderte Version ausgewechselt werden.

Cassettenfach, neu	4822 443 63566

In Geräten mit Wochencode ab 9345 bis 9407 sind die Filzplättchen ab Fabrik eingeklebt.

Ab Woche 9408 wurde in der Fertigung das neue Cassettenfach eingebaut.

PHILIPS

SI Wichtig für die Werkstatt!

Sachgebiet: AC 51 HiFi

Nummer: 51076

Datum: 11.05.1994

Service Information

Betrifft: HiFi-Cassettendeck
70 FC 930
Cassettenfach blockiert

Verteiler: INTERN UND EXTERN

Wenn bei nicht richtig im Cassettenfach positionierter Cassette die REC/PAUSE-Funktion eingeschaltet wird, kann es geschehen, daß der Kopf nicht in die entsprechende Cassettenöffnung sondern gegen deren unteren Rand geschoben wird.

Dabei bringt die Kommandoscheibe die Laufwerkmechanik dennoch in PAUSE-Funktion; der Triggerhebel Pos. 55 gerät unter große mechanische Spannung und der Zugmagnet kann ihn nicht mehr freigeben.

Wird nun die PLAY-Taste gedrückt, schaltet die Elektronik nach einigen Versuchen - begleitet von klickenden Geräuschen - ab.

Die Cassette blockiert das Cassettenfach, es läßt sich nicht mehr öffnen.

Bei Geräten mit der oben beschriebenen Fehlererscheinung ist wie folgt vorzugehen:

1. Cassettenfach entriegeln.

   - Gehäusedeckel abnehmen;
   - Triggerhebel mit Schraubendreher, Pinzette o.ä. leicht nach oben schieben; dadurch wird die Laufwerk-Blockade in den meisten Fällen beseitigt.

Triggerhebel und Zugmagnetanker sind zugänglich durch eine kleine Öffnung an der Laufwerk-Rückseite links unterhalb des linken Schwungrades.

4812 829 51076

Nachdruck nicht gestattet! Änderungen vorbehalten.

PHILIPS

4456 ~~45024~~

Wichtig für die Werkstatt!

Nummer: 51059

Sachgebiet: AC 51 CD

Datum: 03.06.93

SI

Service Information

Betrifft:

Hifi Cassetten-Deck 70FC 930

INTERN UND EXTERN

Verteiler:

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1. Durch ungünstige Auseinanderfolge vom Bedienvorgängen - ohne zwischenzeitlich auf STOP zu gehen - kann es zu einem Unterbrechen der Sicherung 1661 (315 mA) auf dem RE-Modul kommen.
In solchen Fällen ist die Sicherung 1661 durch einen PTC-Widerstand zu ersetzen.
PTC (Ersatz für 1661) 4822 116 40227
Geräte mit Wochencode ab 9312 sind ab Werk mit einem PTC anstelle der Sicherung bestückt.

2. Das Cassettendeck hat eine automatische Bandsorten-Umschaltung für Ferro- bzw. Chromcassetten.
Um auch das Löschen bespielter Metal-Cassetten sicherzustellen, sind folgende Änderungen notwendig (s. Service Manual, S.31):
3676 (12k) ändern in 1,5k 4822 051 20152
2643 (150p) ändern in 56p 5322 122 32661
Geräte mit Wochencode ab 9313 sind mit den geänderten Werten bestückt.

4812 829 51059

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Nachdruck nicht gestattet! Änderungen vorbehalten.